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CATEL'S

HARMONY.

A

TREATISE ON HARMONY,

WRITTEN AND COMPOSED

FOR

THE USE OF THE PUPILS

AT THE

ROYAL CONSERVATOIRE OF MUSIC, IN PARIS;

BY

Charles Simon CATEL,

Professor of Harmony in that Establishment.

FROM THE ENGLISH COPY,

WITH ADDITIONAL

NOTES AND EXPLANATIONS,

By LOWELL MASON.

Boston:

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1832.

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Rev. E. E. Hale.

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AUTHOR'S PREFACE.

SEVERAL Treatises on Harmony being already published, which are possessed of merit, perhaps it will appear a bold attempt to present the public with one which essentially differs from them; however, as the aim of the various systems is the same, writers may differ respecting the means of attaining this end.

In publishing his own system, the author is far from depreciating those which differ from his doctrine; he has undertaken this work to simplify, as much as possible, the Elements of Harmony, and reduce them to their true origin, by showing that all discords are generated by concords.

He has reduced the chords to a small number, by giving the name of chord, only to such as want no preparation, and derive their origin from the sonorous body.

He has divided Harmony into two species, viz. natural and artificial. Natural harmony includes all the chords which do not want preparation; artificial or compound harmony is grounded on natural harmony, and is formed by the retardation of one or several parts,

which prolong one or more notes of a preceding chord into the following one.*

Every progression of natural harmony may become artificial by introducing retardations, and vice versa, every artificial harmony may become natural, by leaving out the retardations; therefore it must appear evident, that natural harmony is the basis of all dissonant progressions, and that they all emanate from that source.

This method not only teaches the nature of the chords, but also their use; it saves the pupil the trouble of loading his memory, with a numerous series of isulated combinations, which considered as so many different chords, render harmony difficult to be understood and intricate in practice.

Besides, most of the treatises on harmony, only teach the names of the chords, and the manner of using them, so that after having learnt Thorough Base, by that method, the pupil is quite unacquainted with the art of Counterpoint, and is forced to begin again the study of composition by the progressions of concords, with which he is unacquainted, although he knows the names of all the chords.

This treatise not only teaches Harmony, but the first principles of Counterpoint.

---

* After the common chord C, E, G, should the chord F, A, C, be played, the harmony is natural, but if on the second chord, the third of the first chord is continued, this retardation on the chord F, A, C, will produce a discord, (a 7th.); if the 5th G be prolonged into the second chord, it will form with F, A, C, the discord of the ninth, and the harmony will become artificial.

CONTENTS.

PAGE

Preliminary Instructions on Intervals, ... 9
Table of Intervals, ... 10
On Concords and Discords, ... 12
On the Different Motions or ways in which the parts move, . . 13

CHAPTER I.

General Theory of the Chords, ... 15

CHAPTER II.

Of the Common Chord, ... 17
ARTICLE 1. Of the Major Common Chord, ... 17
" 2. Of the Minor Common Chord, ... 19
" 3. Of the Imperfect Common Chord, ... 20
" 4. Of the use of the Three Common Chords, . . . 22

CHAPTER III.

Of the Dominant Seventh and Inversions, ... 25

CHAPTER IV.

Of the Minor Seventh and Flat Fifth in the Major Mode, . . . 27
Of the Minor Seventh and Flat Fifth in the Minor Mode, . . . 32

CHAPTER V.

Of the Diminished Seventh, ... 33

CHAPTER VI.

Of the Dominant Ninth in the Major Mode, ... 36
Of the Dominant Ninth in the Minor Mode, ... 38

CHAPTER VII.

Of Transient Notes and Retardations, ... 38
Article 1. Of Transient Notes, ... 39
" 2. Of Suspensions or Retardations, ... 42
Examples of all the Progressions of the Base, with the Natural Chords, and the Prolongations which can be introduced, 49

CHAPTER VIII.

Of Cadences, ... 68
Examples of the Progressions of the Base in general use to make a Cadence, ... 78

CHAPTER IX.

Of the Different Progressions of the Base, going through the Diatonic Scale, with the Natural and Artificial Harmony, . 85

CHAPTER X.

Of the Three Genera, the Diatonic, Chromatic, and Enharmonic, . 121

CHAPTER XI.

Of Pedal Notes, ... 125

CHAPTER XII.

Of Chords with Alterations, ... 129

CHAPTER XIII.

Of Modulation, ... 135

CHAPTER XIV.

Of the Signatures used in Accompaniment, ... 145

TREATISE ON HARMONY.

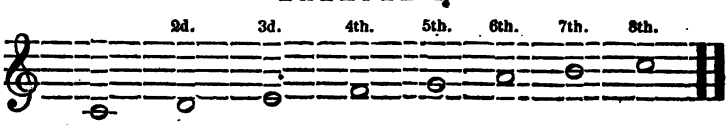
PRELIMINARY INSTRUCTIONS.

OF INTERVALS.

An interval is the distance from a note to another. In Harmony, intervals are counted from the grave to the acute; the Base being the lowest part, the intervals which form the chords are counted from that part.

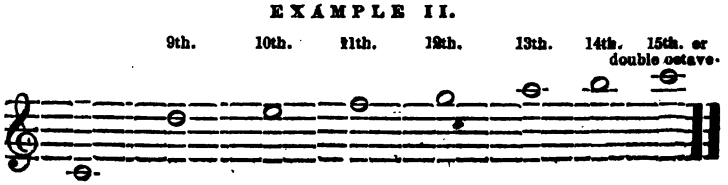
In the scale are included the intervals of Second, Third, Fourth, Fifth, Sixth, Seventh and Octave thus.

EXAMPLE I.



The intervals above the octave are but replicates of the foregoing; the ninth is a replicate of the second, the tenth of the third, the eleventh of the fourth, &c.

EXAMPLE II.



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CHAPTER XIV.

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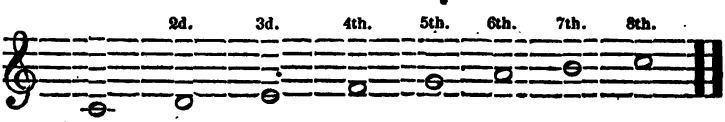

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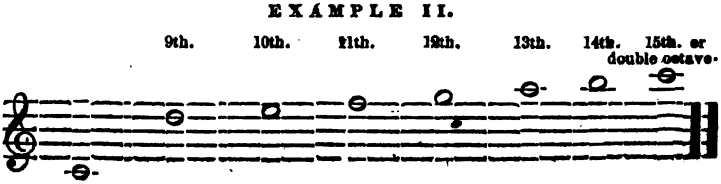
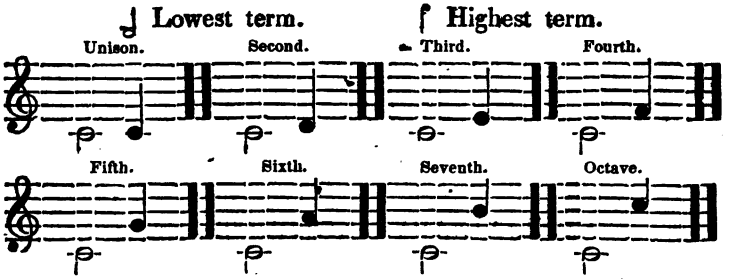
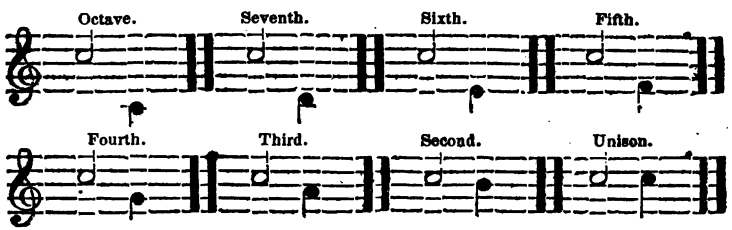


By inverting the intervals, that is to say, by placing the lowest term the highest, the unison* becomes an octave, the second becomes a 7th, the 3d a 6th, the 4th a 5th, the 5th a 4th, the 6th a 3d, the 7th a 2d, the 8th an unison.

DIRECT INTERVALS.



INVERTED INTERVALS.

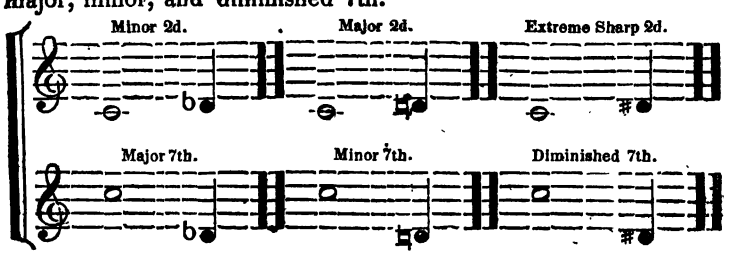



TABLE

OF THE DIFFERENT SPECIES OF INTERVALS AND THEIR INVERSIONS.

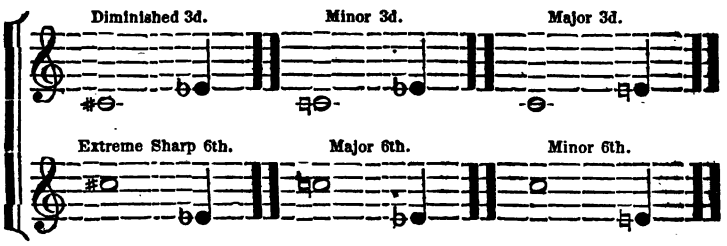
Each of the Intervals is of three different species.

There are three species of the second, viz. the minor, the major, and the extreme sharp; the inversions of which are the major, minor, and diminished 7th.

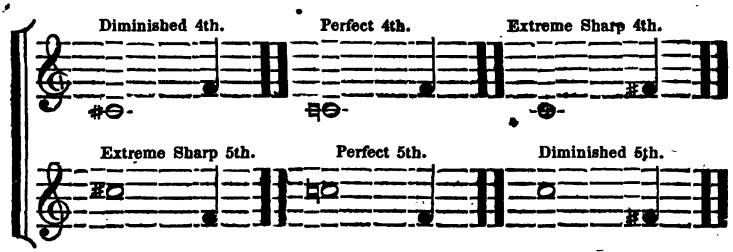


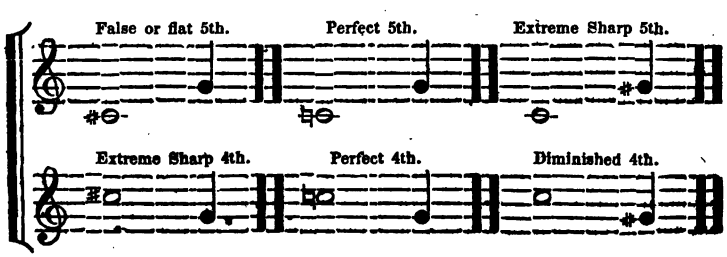
* The unison is not properly an interval, although it is so treated in Harmony.

There are three species of the third, viz. the diminished, the minor, and the major; the inversions of which are the extreme sharp, the major, and the minor 6th.

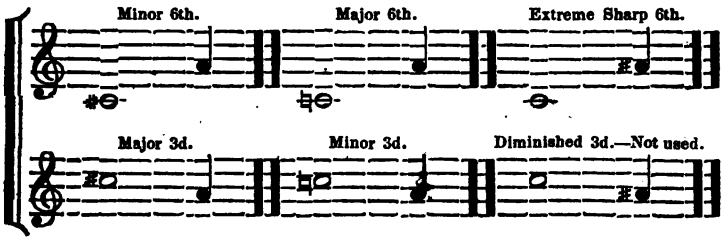


There are three species of the fourth, viz. the diminished, the perfect, and extreme sharp. The inversions of which are the extreme sharp, perfect, and diminished fifth.

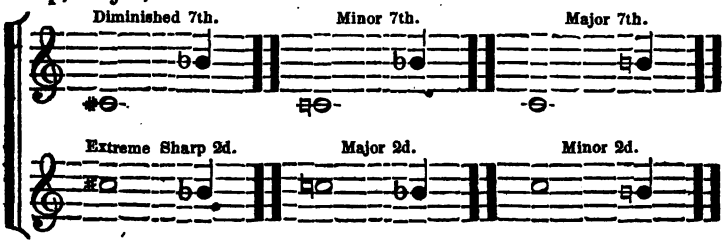


There are three species of the fifth, viz. the flat,* the perfect and the extreme sharp. The Inversions of which are the extreme sharp, the perfect, and the diminished fourth.

* Same as diminished.

There are three species of the sixth, viz. the minor, major, and extreme sharp; the inversions of which are the major, minor, and diminished third.*



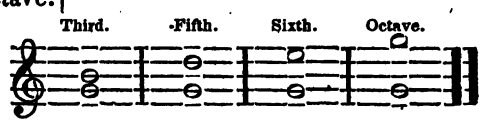
There are three species of the seventh, viz. the diminished, minor, and major; the inversions of which are the extreme sharp, major, and minor second.



Of Concords and Discords.

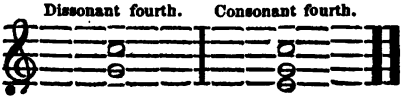
Intervals are divided into consonant and dissonant.

Consonant Intervals (concords) are the 3d, the 5th, the 6th and the octave.†

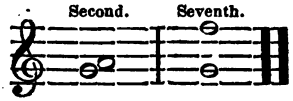


* Albrechtsberger makes four species of the 6th, viz. diminished, minor, major, and superfluous or extreme sharp.

† The fourth being an inversion of the fifth should be considered as a concord; but its effect being much less agreeable than that of the fifth, it is considered as a discord against the Base, and as a concord between the middle and upper parts. Nevertheless the fourth is used as a concord in the 2d inversion of the common chord: but for the above reason this inversion is less pleasing to the ear and the only one of which a succession cannot be formed.

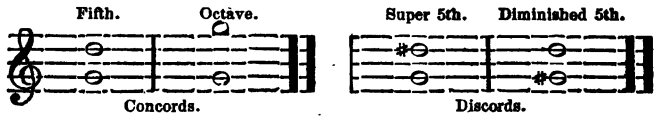


Dissonant Intervals (discords) are the 7th, and its inversion the 2d.



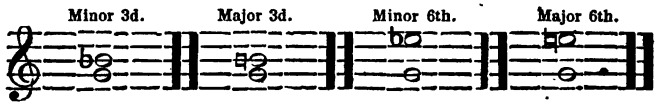
Concords are divided into perfect and imperfect.

Perfect Concords are the fifth and the octave: they are called perfect, because they cannot be altered without ceasing to be concords.



N. B. As the fifth when altered ceases to be a concord, the false or diminished fifth and the superfluous fifth* must be considered as dissonant intervals, (discords).

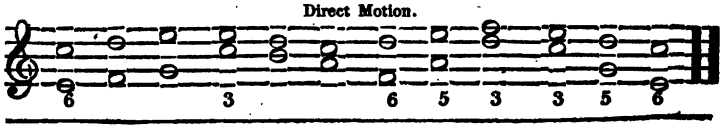
Imperfect Concords, are the third and sixth; they are called imperfect concords, because they may be major or minor and still be concords.



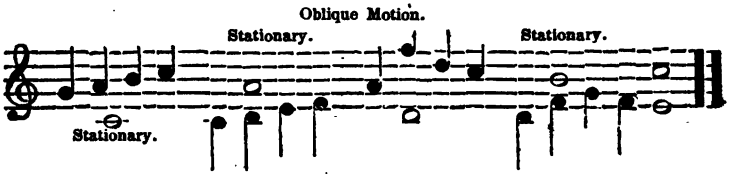
N. B. The diminished third, and the superfluous sixth, are dissonant intervals, the first is not used in Harmony, the other but seldom and that in a minor mode.

OF THE THREE DIFFERENT MOTIONS.

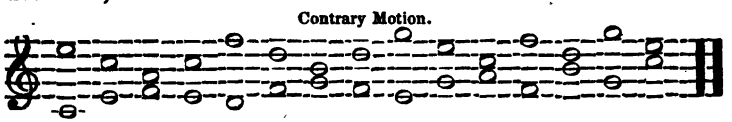
Three different motions are used, viz. the direct, the oblique, and the contrary.

The motion is direct, when the parts ascend or descend at the same time.

* Superfluous — the same as the extreme sharp.

The oblique motion, is when one part remains stationary while the other ascends or descends.



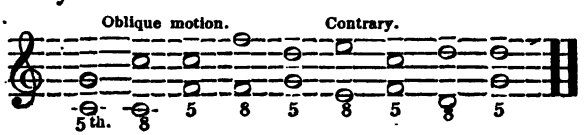
The contrary motion, is when one part ascends while the other descends, or *vice versa*.



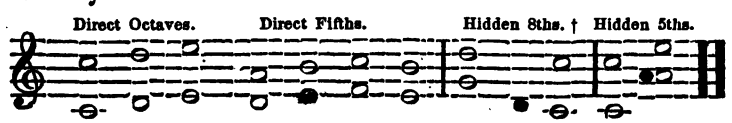
The oblique and especially the contrary motion supply a composer with many resources, and give the harmony more variety than the direct which is seldom used, for many successive chords.

OF THE PROGRESSION OF CONCORDS.

A succession of perfect concords is used only with the oblique and contrary motions.



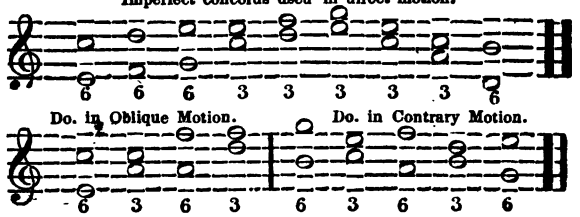
Should a series of perfect concords be used in the direct motion, consecutive 5ths and 8ths would occur: these must be carefully avoided.*



* This rule, though considered of the very first importance, is often violated by some modern composers. — See for example the Fairy Chorus in Cinderella by Rossini.

† In compositions of 3 and 4 parts, the hidden 5ths and 8ths are tolerated in the middle parts (between concords only).

A succession of imperfect concords may be used in the three motions.

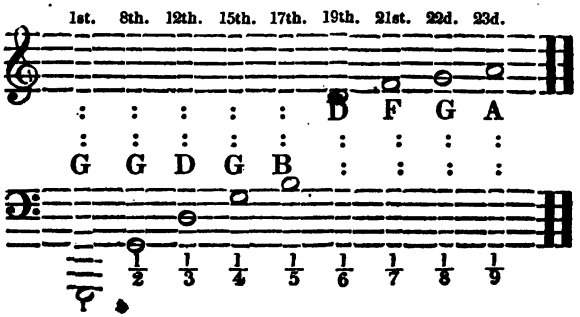


CHAPTER I.

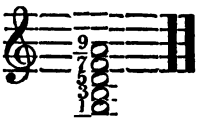
GENERAL THEORY OF THE CHORDS.

THERE is in harmony one chord which is the foundation of all others; this chord is formed from the produce of the sonorous body, or primitive divisions of the monochord. Supposing the sound given by the vibration of a whole string when distended, to be G, half of the string when set in vibration will give another sound G, but at the octave of the first.

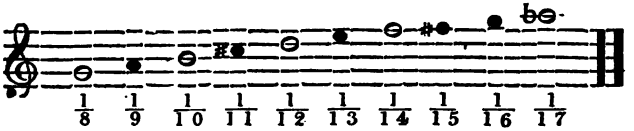
The 3d of the string gives a sound D, at the 12th.
The 4th of the string gives a G, at the double 8ve.
The 5th will give a B, at the 17th above.
The 6th, a D, octave of the 3d, or a 19th above.
The 7th, an F, at the 21st above.
The 8th, a G, at the triple octave.
The 4th, an A, at the 23d above, thus:



By beginning the progression from the fourth of the string, or from the double octave of the 1st sound, we shall find in progression of thirds the chord G, B, D, F, A.



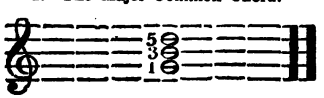
Should the experiment be began at the triple octave, that is the 8th part of the string, and the intermediary sounds be left out, the chord G, B, D, F, Ab, will be produced.



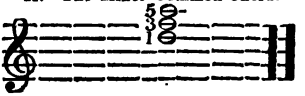
This chord is the same as the foregoing, but is in the minor mode.

All the chords used in natural Harmony are contained in this chord and in the foregoing.

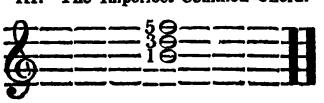
I. The Major Common Chord.



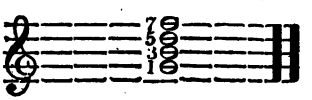
II. The Minor Common Chord.

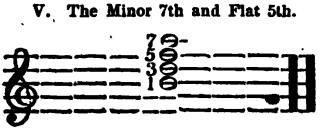
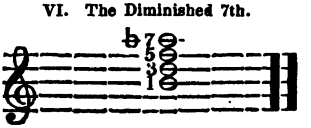


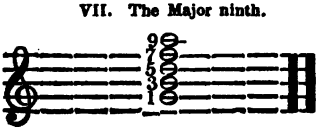
III. The Imperfect Common Chord.

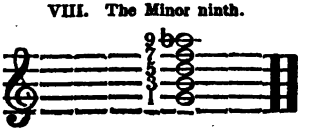


IV. The Dominant seventh.



V. The Minor 7th and Flat 5th.

VI. The Diminished 7th.

VII. The Major ninth.



VIII. The Minor ninth.

These chords and their inversions are the only ones that can be played without preparation; they form what the Author terms *Natural Harmony.*

The other Chords introduced in Harmony are formed by the prolongation of one or several notes of a chord into the following; they go by the name of *Artificial Harmony.*

CHAPTER II.

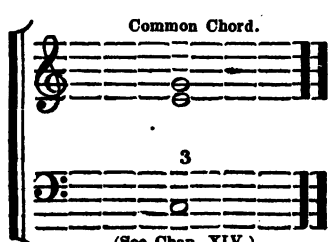
OF THE COMMON CHORD.

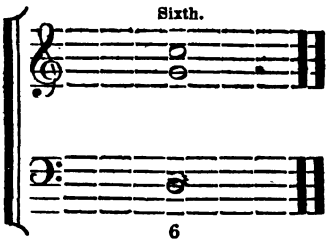
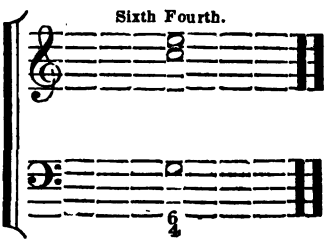
The common chord consists of a note its 3d and 5th to which in four parts the octave is added: there are three principal species of this chord, the major, minor and imperfect.

ARTICLE 1.

OF THE MAJOR COMMON CHORD.

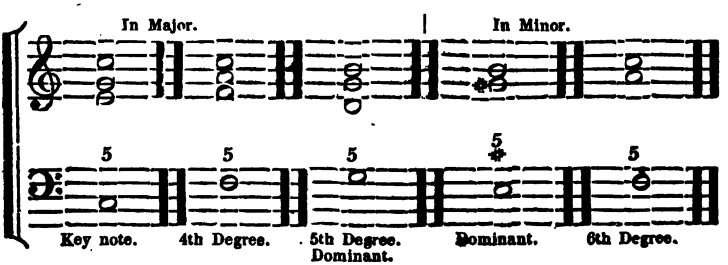
The major common chord is composed of a note, its major 3d, perfect 5th and 8th, it is figured by 5, or 3, or 8, according to circumstances.



The 1st inversion is composed of a note, its minor 3d and minor 6th, it is figured by 6 or $\frac{6}{3}$.

The 2d inversion is composed of a note, its perfect 4th and major 6th, it is figured by $\frac{6}{4}$.

The major common chord is played in the major mode on the Tonic, on the Dominant or 5th degree, and on the subdominant or fourth degree of scale.

In the minor mode, the major common chord is played on the Dominant, and 6th degree of the scale.

EXAMPLE.



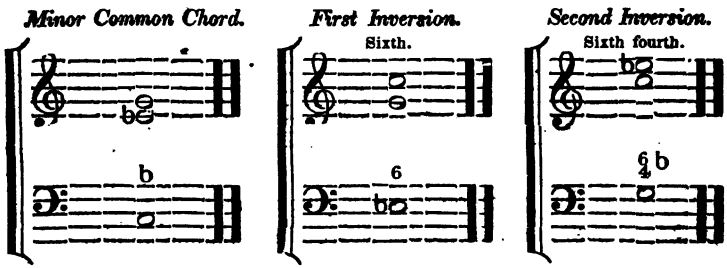
ARTICLE 2.

OF THE MINOR COMMON CHORD.

The minor common chord is composed of a note, its minor third and perfect fifth.

The first inversion is composed of a note, its major third, and major sixth.

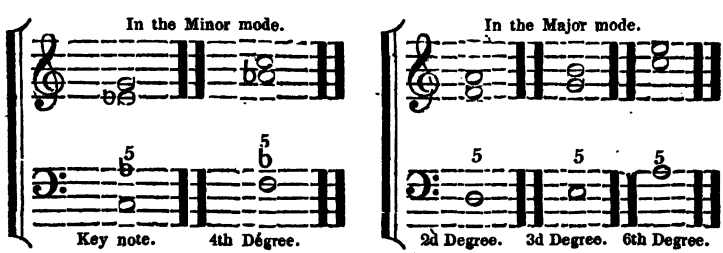
The second inversion, of a note, its perfect fourth and minor sixth.



The minor common chord and inversions are figured as the major common chord and inversions, placing after the figures such alterations as are not indicated by the signature.

In the minor mode, the minor chord is played on the tonic, and on the fourth degree.

In the major mode, the minor common chord is played on the second, third, and sixth degrees.



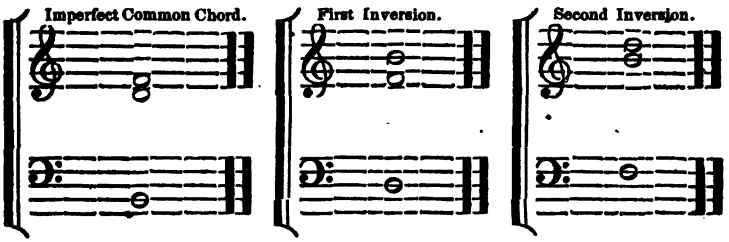
ARTICLE 3.

OF THE IMPERFECT COMMON CHORD.*

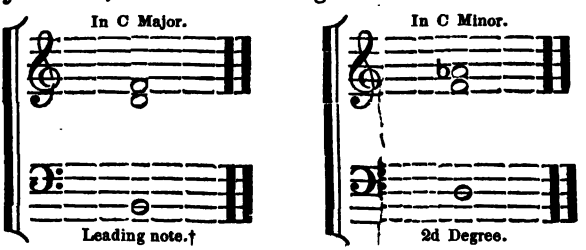
The imperfect common chord is composed of a note its minor 3d and diminished 5th.

The 1st inversion is composed of a note its minor 3d and major 6th.

The 2d inversion is composed of a note its superfluous 4th and major 6th.



The imperfect common chord is played on the 7th degree in the major mode, and on the 2d degree in the minor mode.



N. B. Although the interval of false fifth is not a concord, yet the imperfect common chord cannot be classed amongst discords, for none of the notes of which it is composed has a fixed progression, (as discords have), and every one can ascend,

* This chord is composed of third and fifth as the Major and Minor common chords, but on account of its 5th which being flat is not a concord, it is called imperfect common chord.

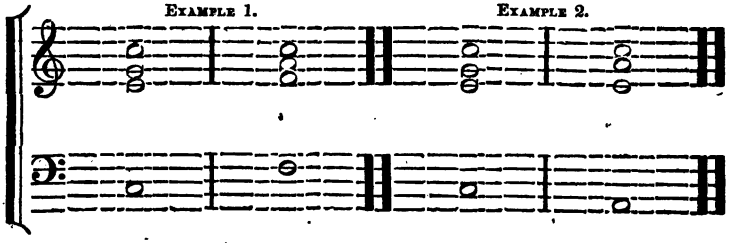
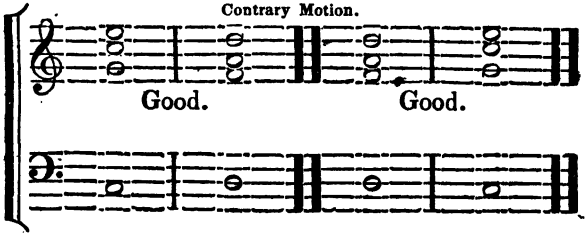
† The 7th degree of the scale is so called.

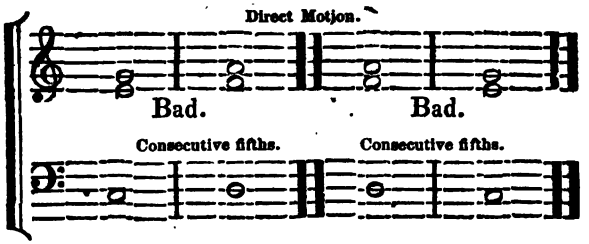
descend, or remain stationary; hence one may conclude that though this chord is less perfect than the two others, yet it can be used at a momentary close, before a more perfect cadence; and may be classed amongst consonant chords.

PROGRESSION OF COMMON CHORDS EXPLAINED.

Obs. I. The common chord may be played on every note of the Scale.

II. Common chords must succeed each other so as to have at least one note common with the preceding chord.

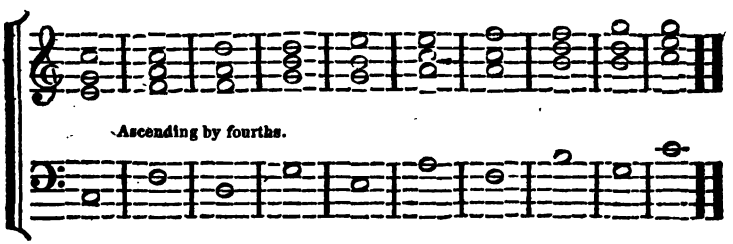
III. The best way to connect common chords is to prepare their 5th thus:*

Nevertheless one may play several common chords one after the other without any connection; but in this case, the contrary motion must be used, to avoid consecutive 5ths, which would take place if the direct motion was used.

* A note is said to be prepared when it has been heard as a concord in the chord immediately preceding. The note prepared in the first example above is C, which is heard as an octave in the first chord, and becomes a fifth in the second. In the second example the note prepared is E, which is heard as a third in the first chord, and becomes a fifth in the second.



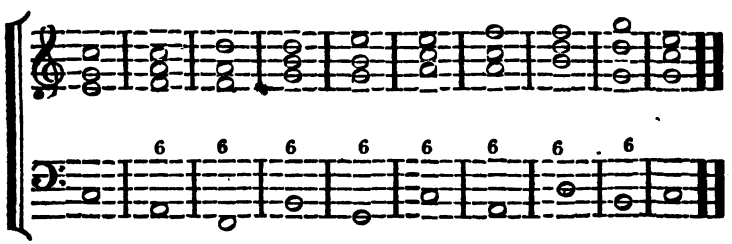
GENERAL EXAMPLES

OF THE THREE COMMON CHORDS AND INVERSIONS.

A series of common chords in which all the 5ths are prepared.

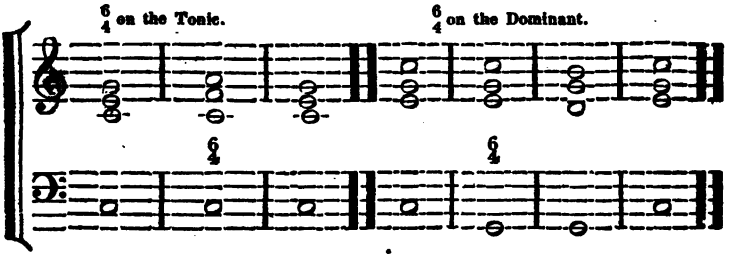


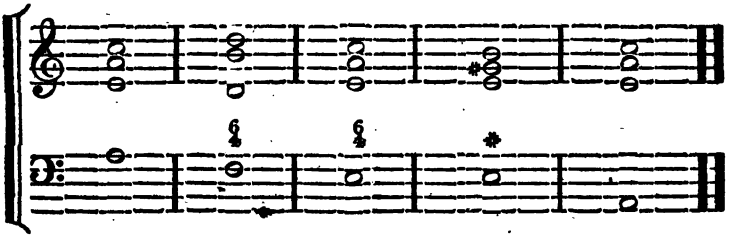
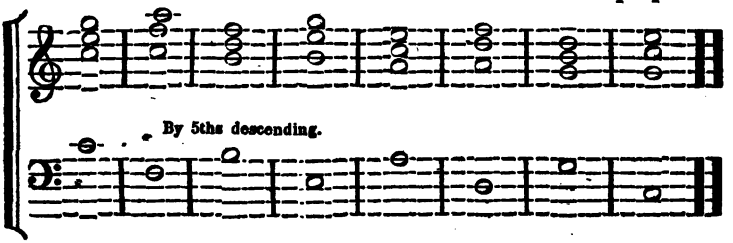
A series of sixths, 1st inversion of the foregoing common chord.

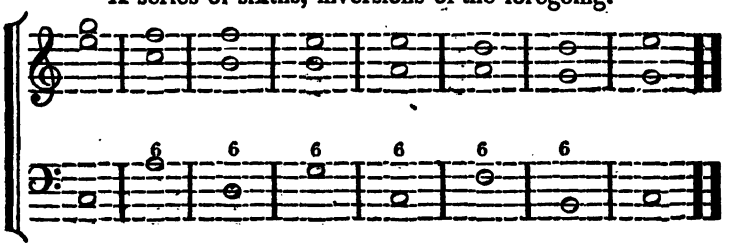


The 2d inversion gives a series of $\frac{6}{4}$, but this succession having a tendency to harshness, is not used.

The chord of $\frac{6}{4}$ is used only on the tonic and dominant.



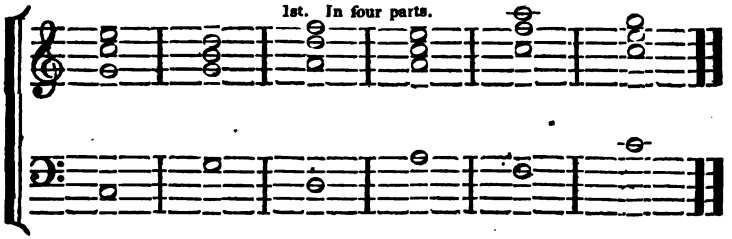
In some cases two $\frac{6}{4}$ may be used successively, but it must be by conjunct degrees.*

Another series of common chords with all the fifths prepared.

A series of sixths, inversions of the foregoing.

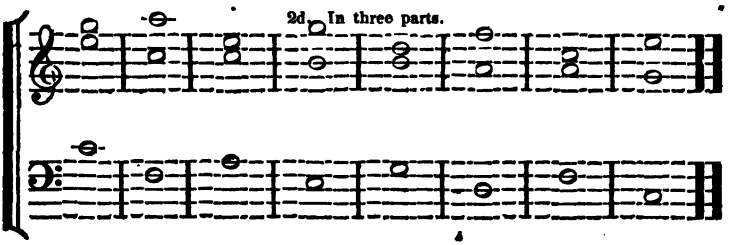


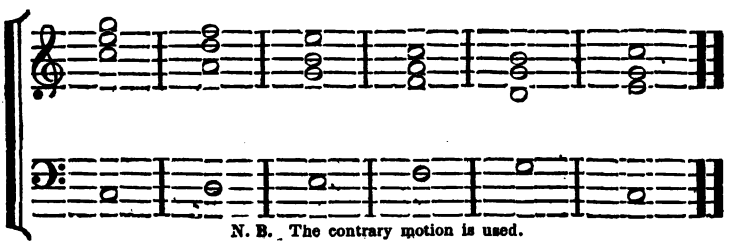
* Two notes which immediately follow each other in the natural order of the scale, are called Conjunct degrees.

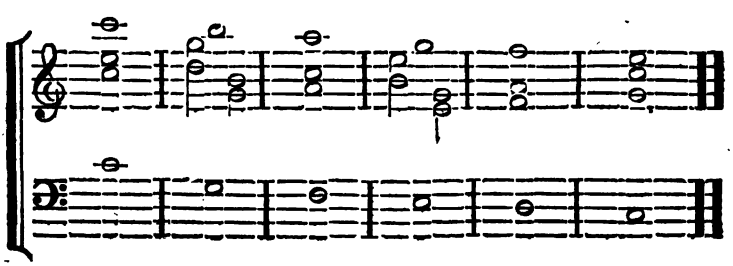
A series of common chords in which the 5ths are not prepared

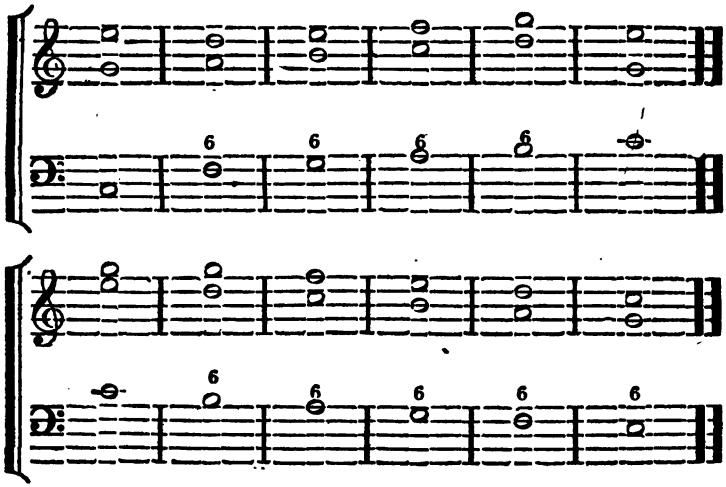
1st. In four parts.



2d. In three parts.

A series of common chords which have no connection, or notes in common.



N. B. The contrary motion is used.

A series of sixths, inversions of the foregoing common chords. This series proceeds by the direct motion.



CHAPTER III.

OF THE DOMINANT SEVENTH.

1. The dominant seventh is composed of a note its major 3d, perfect 5th, and minor 7th; it is figured 7, and played on the 5th of the key, or dominant.

The 7th, which is the discord, must descend one degree in the resolution; the leading note ascends one degree. (See A in the next example).

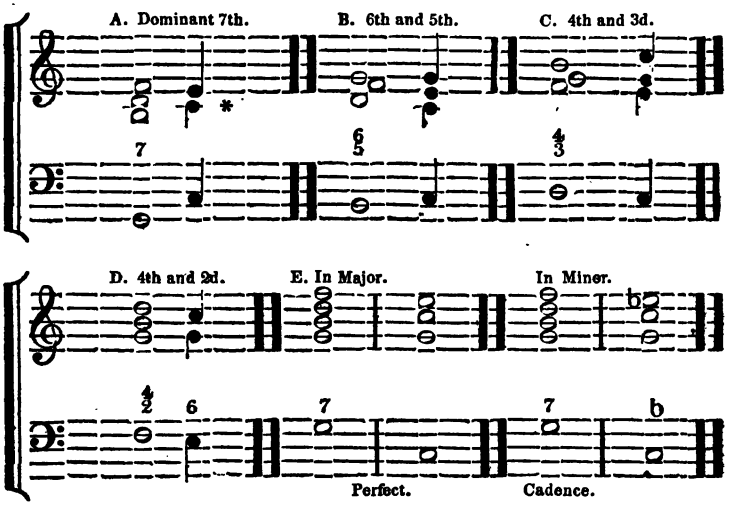
2. The 1st inversion is composed of a note, its minor 3d, false 5th, and minor 6th, it is figured $\frac{6}{5}$, called chord of the false fifth, or of the fifth and sixth, and played on the leading note. (B).

3. The 2d inversion is composed of a note, its minor 3d, major 6th, and perfect fourth; it is figured $\frac{6}{4}$ or $\frac{4}{3}$, called chord

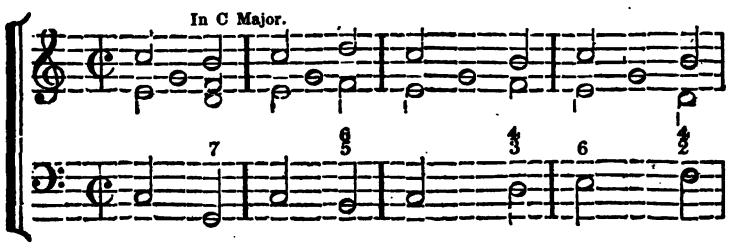
of the little sharp sixth, or of the fourth and third, and played on the 2d degree of the key. (C).

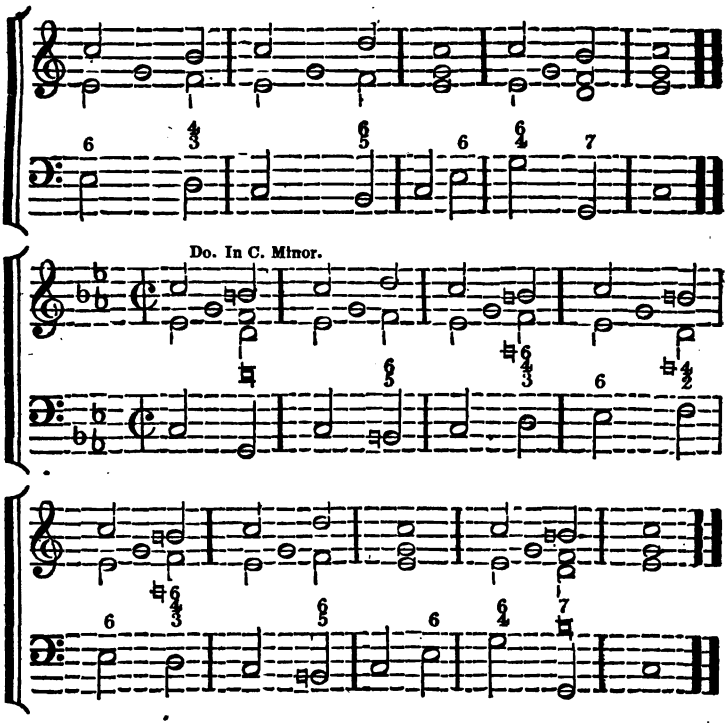
4. The 3d inversion is composed of a note, its major 2d, superfluous 4th, and major 6th. It is called the chord of the tritone, or of the fourth and second, figured $\frac{6}{4}$ or $\frac{4}{2}$, and played on the 4th degree of the scale in descending. (D).

The chord of the dominant 7th is resolved on the tonic, and gives in harmony a cadence called perfect. (E). The dominant 7th is the same in both modes.



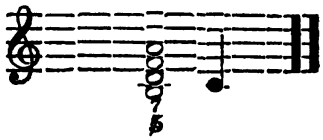
EXAMPLES OF THE DOMINANT SEVENTH AND INVERSIONS.

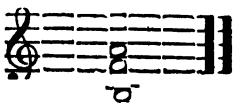


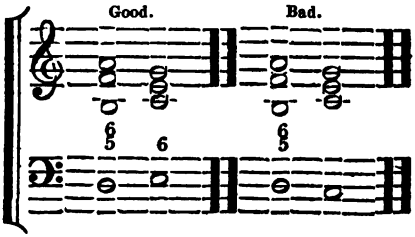
* The black notes show the resolution of the discord.

CHAPTER IV.

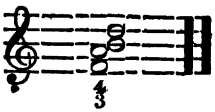
OF THE IMPERFECT SEVENTH, OR MINOR SEVENTH AND FALSE FIFTH. (USED IN BOTH MODES.)

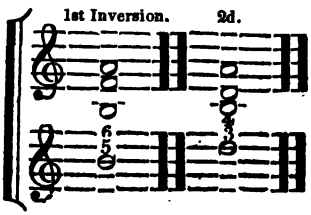
1st. AS USED IN THE MAJOR MODE.

This chord is composed of a note, its minor 3d, diminished 5th, (called false), and minor seventh; it is placed on the leading note; the seventh, which is the discord, descends one degree in the resolution; the 5th being diminished and consequently dissonant, descends; the leading note ascends one degree.

This chord is figured $\frac{7}{5}$. To render the effect more pleasant the 3d is left out, and the chord played as follows.

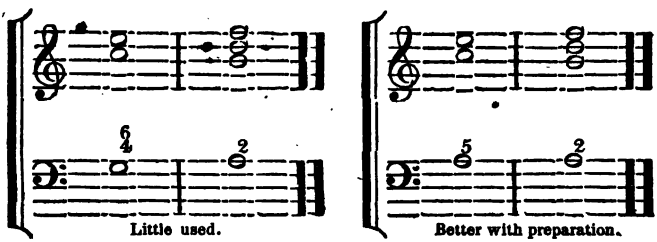


Its first inversion is composed of a note, its minor third, perfect fifth, and major sixth, it is called the chord of great sixth, and figured $\frac{6}{3}$. It is placed on the 2d degree of the scale, which note must ascend to avoid consecutive fifths.

The second inversion is composed of a note, its major third, extreme sharp fourth, and major sixth; it is called chord of tritone and major third, figured $\frac{4}{3}$, and placed on the 4th degree of the scale.*



* To make use of the 1st and 2d inversion of this chord in a manner pleasing to the ear, the interval of second which it contains must be presented as a 7th thus.

The third inversion is composed of a note, its major second, perfect fourth, and minor sixth, it is called the chord of second; figured 2, and is played on the sixth degree of the scale.

Although this inversion can be played without preparation, it is very little used that way, its effect is much more pleasant when the discord is prepared.



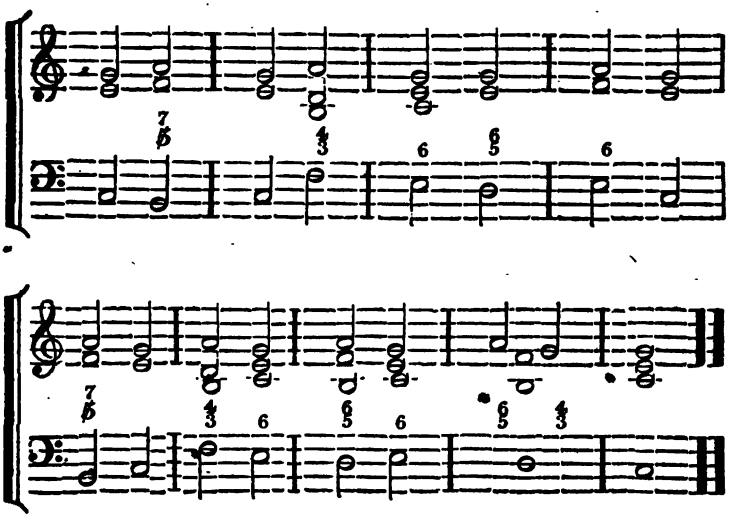
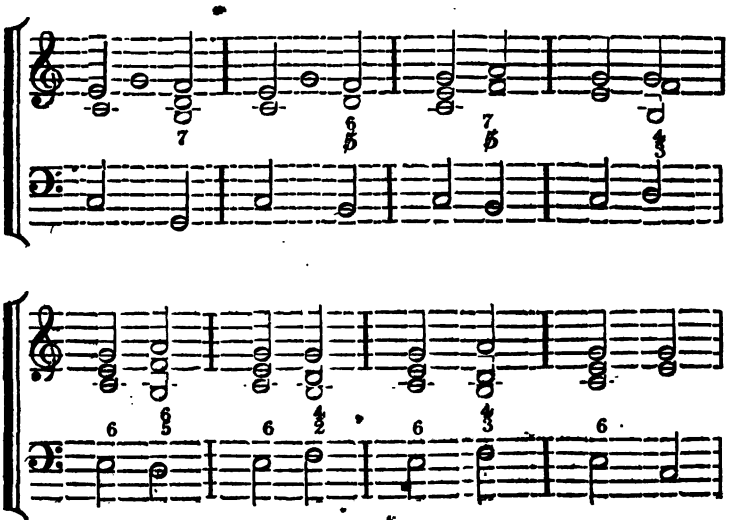
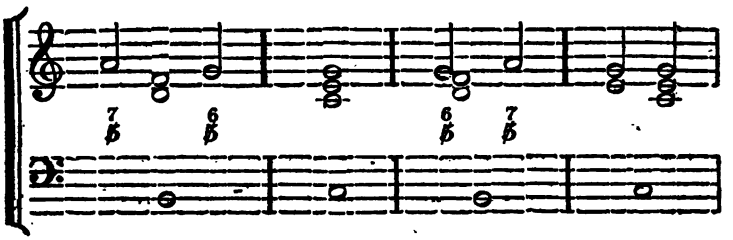
OBSERVATIONS ON THE IMPERFECT SEVENTH.

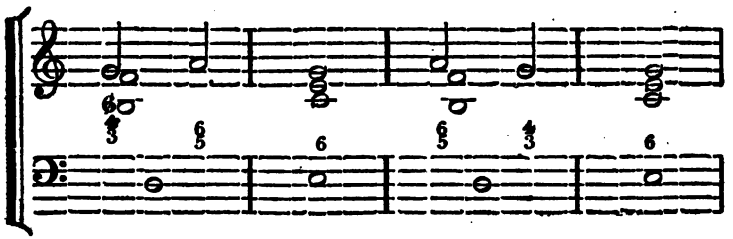
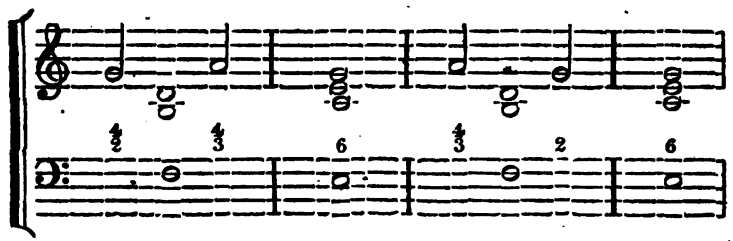
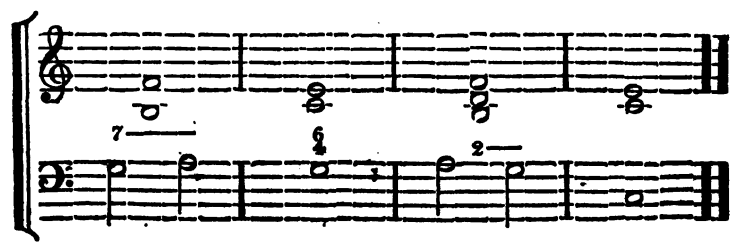
This chord is resolved on the key note as well as the dominant seventh, these two chords have three notes in common.

One or the other of these chords, and even both, alternately, may be placed on each of the three notes which they have in common.

The resemblance which exists between these two chords is a proof of their identity, and clearly shows their common origin.

The fundamental sound of the dominant seventh may be likewise considered as being that of the sensible seventh, or imperfect 7th, on the seventh degree of the scale. (The fundamental sound of a chord is the lowest note, when the chord is disposed by thirds).

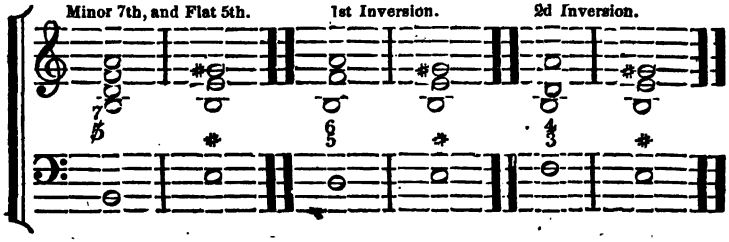
Example of the minor seventh and false fifth in the major mode.

The dominant seventh and the foregoing seventh used alternately.

7 6 6 7
♭ ♭ ♭ ♭


6 6 6 6 4
4 5 5 3
3
6 6

4 4 4
2 3 3
6 2 6

7 6 2
4

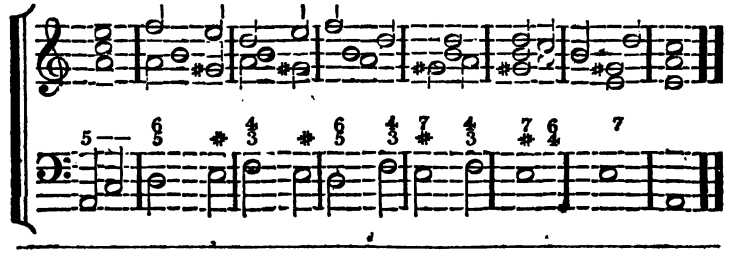
2d. OF THE MINOR SEVENTH AND FALSE FIFTH, USED IN THE MINOR MODE.

The minor seventh and false fifth does not belong exclusively to the major mode; in some cases it is used without preparation on the second degree of the minor scale.* It is resolved into the dominant 7th, and is figured as in the major mode.

N. B. The third inversion is not used without preparation. This seventh, on account of its double use, is termed by some French theorists, *Septieme mixte.*



This chord being oftener used in the minor mode with the 7th prepared than not, may be considered as an imperfect common chord, with a prolongation of seventh, and may be classed with natural chords which receive the prolongation of a note foreign to their harmony.

Example of the 7th on the 2d degree in minor, used without preparation.

* In the minor mode the root or fundamental sound of this chord is the lowest note, and not the dominant, as in the major made.

CHAPTER V.

OF THE DIMINISHED SEVENTH.

The diminished seventh is composed of a note, its minor third, false fifth, and diminished seventh; or three minor thirds.

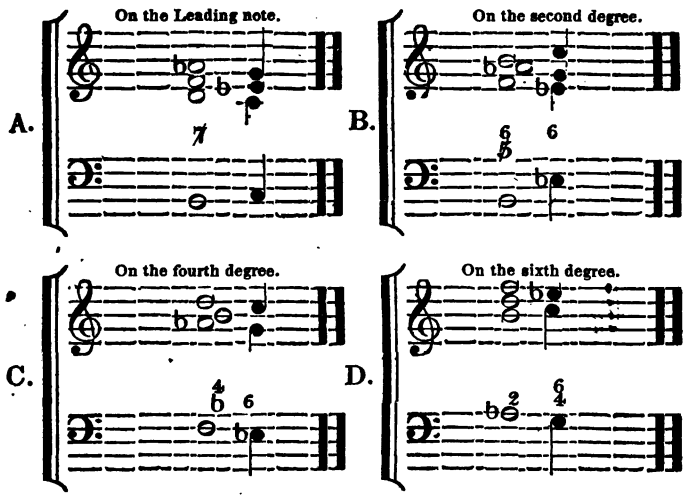
This chord is played on the leading note in a minor mode and figured 7 or 7.

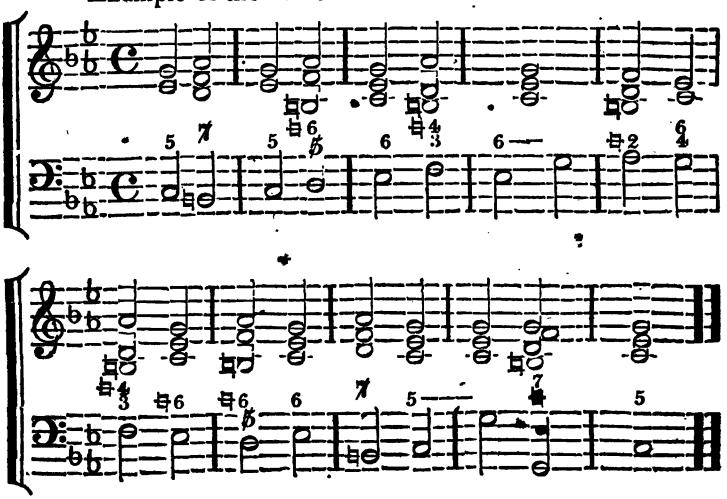
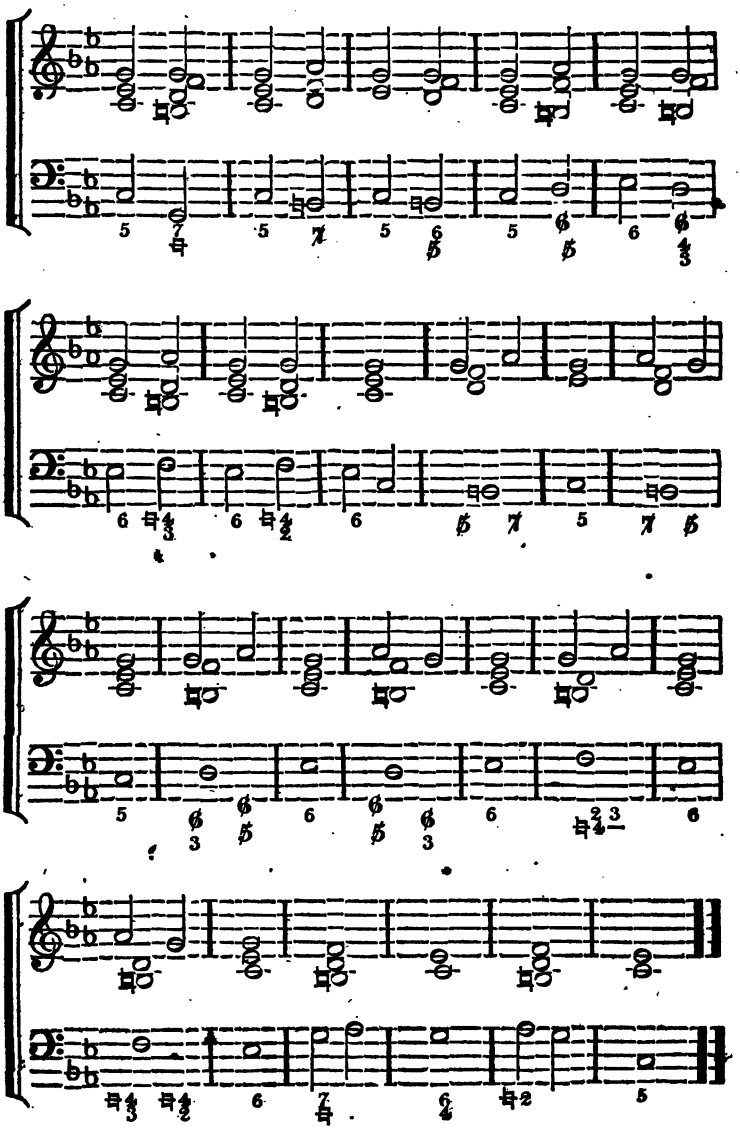
The seventh, which is the discord, is resolved by descending one degree; the 5th, which is diminished, also descends one degree; and the leading note ascends one degree. (A.)

N. B. This chord belongs exclusively to the minor mode, and cannot be used in a major mode but by licence.

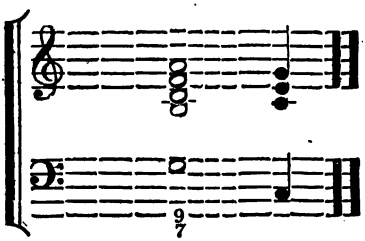
The first inversion is composed of a note, its minor third, false fifth, and major sixth; it is called the sharp sixth with false fifth, figured 6 or 6, and played on the second degree of the scale. (B.)

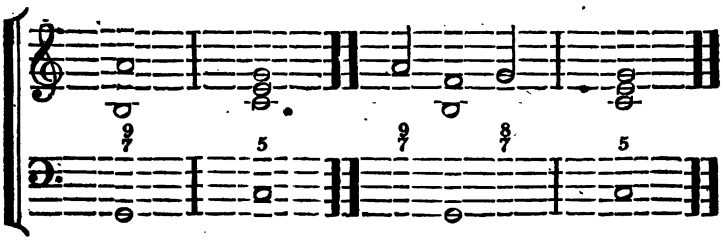
The second inversion is composed of a note, its minor third, sharp fourth, and major sixth; it is called the chord of the tritone and minor third, figured 4, and played on the fourth degree of the scale descending. (C.)

The third inversion is composed of a note, its extreme sharp second, sharp fourth, and major sixth, it is called the chord of the extreme sharp second, figured 2, and played on the sixth note of the key. (D.)

N. B. The diminished 7th is resolved into the chord of the tonic. What was said (page 29) of the imperfect seventh and its relations with the dominant seventh, may be applied to the diminished seventh.

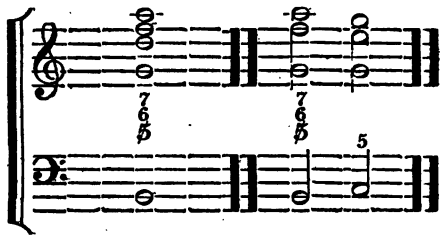
Example of the use of the diminished seventh.

The diminished seventh and the dominant seventh alternately introduced.

CHAPTER VI.

ON THE DOMINANT NINTH.

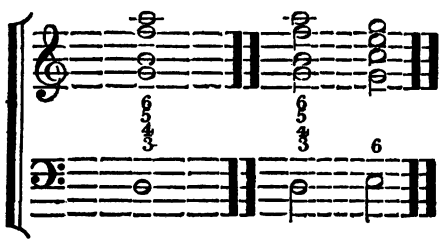
I. This chord, which is the unison of the dominant seventh and the imperfect seventh, is composed of a note, its major third, perfect fifth, minor seventh, and major ninth, it is figured $\frac{9}{7}$, and played on the dominant key.

The seventh and ninth are discords, and must descend one degree in the resolution: they may be either resolved at the same time, or one after the other, beginning by the ninth.

The leading note must ascend one degree; the whole chord is resolved into the common chord of the tonic. To soften the harshness of the chord, the fifth is generally left out.

N. B. This chord may be inverted, but the fundamental sound must always be a ninth distant from the discord, this interval of ninth not being susceptible of inversion.

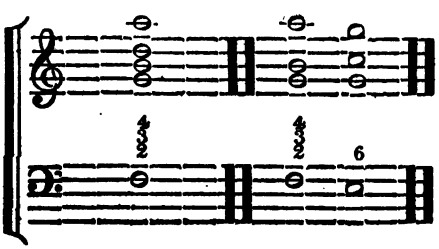
The first inversion is composed of a note, its minor third, false fifth, minor sixth, and minor seventh, (at the octave above;) it is figured $\frac{7}{6}_{\flat 5}$, and played on the leading note.



The second inversion is composed of a note, its minor third, fourth, fifth, and major sixth, it is figured $\frac{6}{4}_{3}$. (This inversion is seldom used).



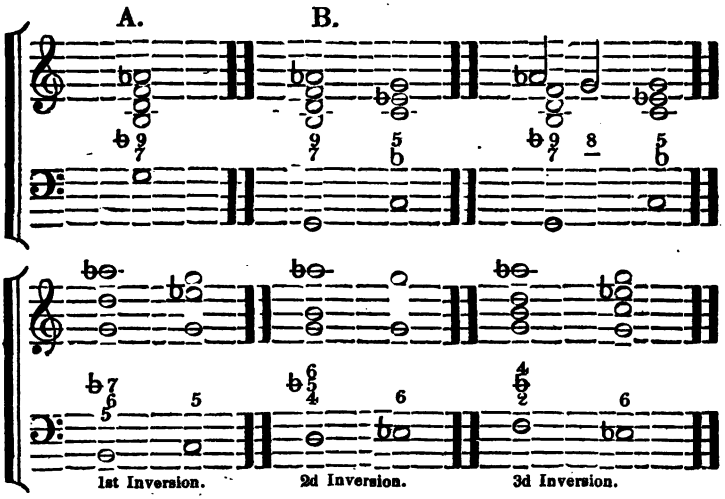
The third inversion is composed of a note, its major second, major third, extreme sharp fourth, and major sixth, it is figured $\frac{4}{3}_{2}$.



OF THE DOMINANT NINTH IN MINOR. (MINOR 9TH, AND MAJOR 3D).

This chord differs from the foregoing, by the ninth, which is major in the foregoing and minor in this; it is the union of the dominant and diminished seventh. (A). Its signature is $\frac{9}{7}$.

This chord and inversions are used in the same manner as the dominant ninth in a major mode. (B).



CHAPTER VII.

ON TRANSIENT NOTES AND RETARDATIONS.

Natural Harmony being composed only of common chords, dominant sevenths, and sevenths on the leading note, the frequent repetition of the same chords would soon produce a tiresome monotony, which is avoided by means of artificial discords introduced in the natural harmony.

These artificial discords are formed either by *transient notes*, or by *prolonged notes*.

ARTICLE 1.

OF TRANSIENT NOTES.

Transient notes are used on the unaccented part of a measure or on its unaccented divisions.

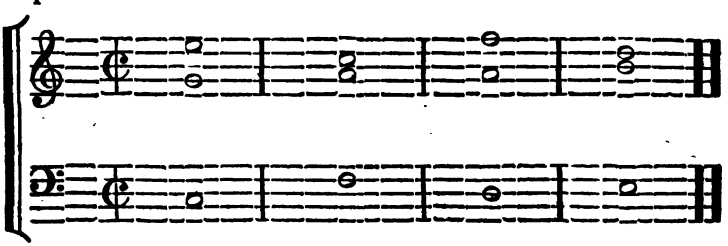
They are foreign to the Harmony, and only pass on the chords, without making part of them.

Transient notes serve to fill the vacancy of an interval of 3d, or 4th, or 5th, 6th, &c. Their progression is by diatonic degrees in ascending or descending.

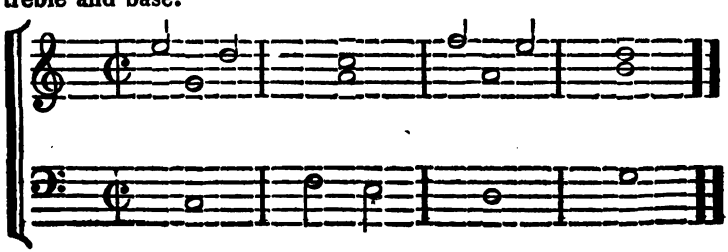
The rule which forbids two consecutive fifths or eighths, or even two fourths, must be applied also to transient notes, as if they were part of the harmony.

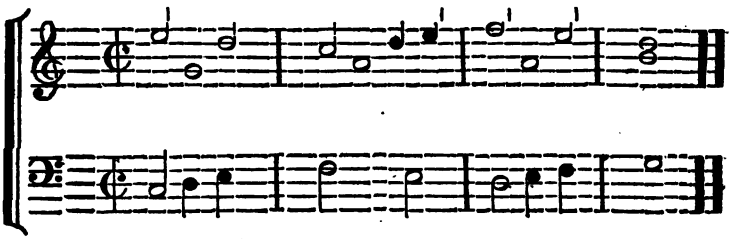
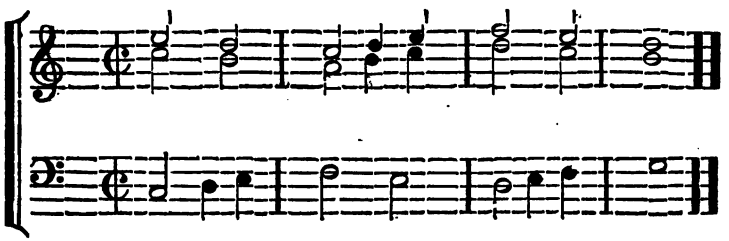
EXAMPLES OF TRANSIENT NOTES.

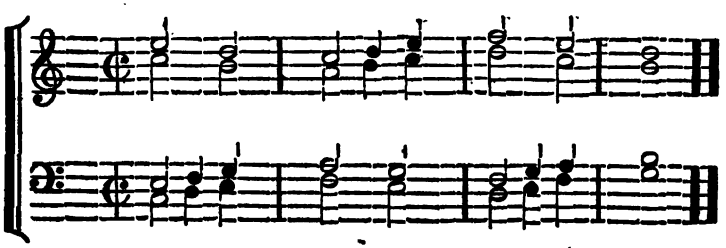
Natural harmony with a skip of third in the treble and a skip of fourth in the base.



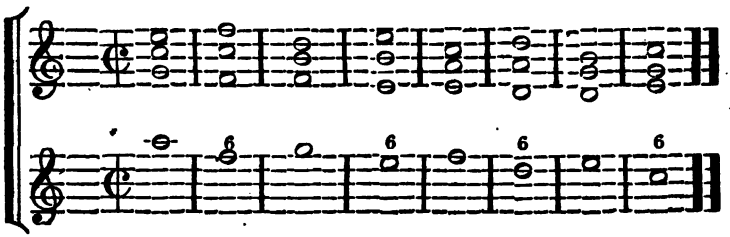
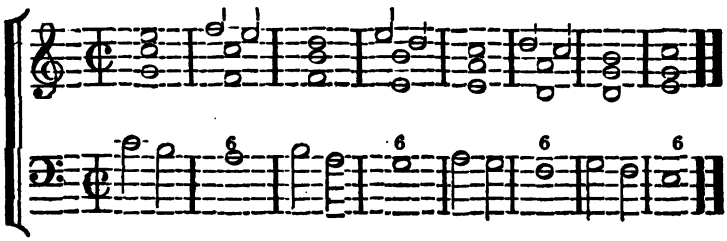
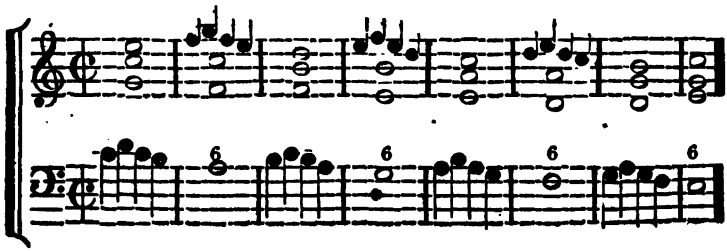
The interval of third filled up by a transient note, both in the treble and base.



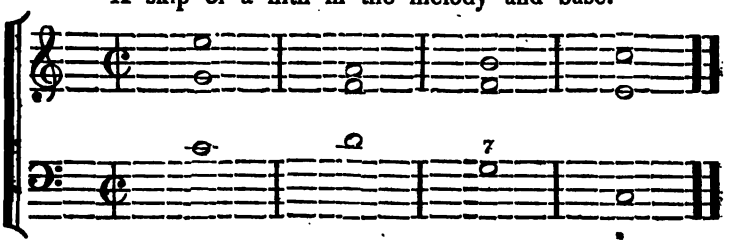
The interval of fourth filled up by two transient notes in the treble and base.

Do. the second treble with transient notes at a third below the first part.

Do. the third part or tenor with transient notes at a third above the base.*

In this example the four parts have transient notes by contrary motion.

* The tenor is written upon the base staff.

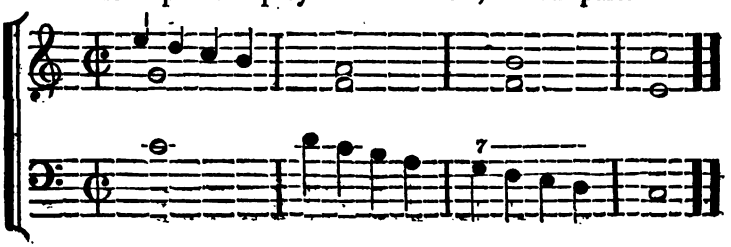
EXAMPLE 2.—NATURAL HARMONY.

Natural Harmony with a skip of the third in the melody and base.

The interval of third filled in the melody and base by a transient note, placed on the unaccented part of the measure.

A transient note placed on the unaccented part of each division of the measure in the treble and base.

EXAMPLE 3. — NATURAL HARMONY.

A skip of a fifth in the melody and base.



The skip filled up by transient notes, in both parts.



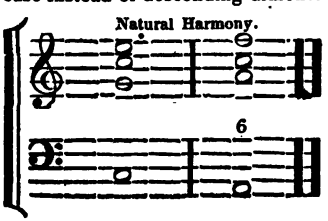
ARTICLE 2.

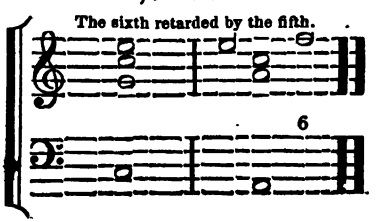
OF RETARDATIONS OR SUSPENSIONS.

One or two notes of a chord may be continued or prolonged into the following chord.

The prolonged note is a discord which must be resolved by descending diatonically, either in the chord into which it is prolonged, or in the following.*

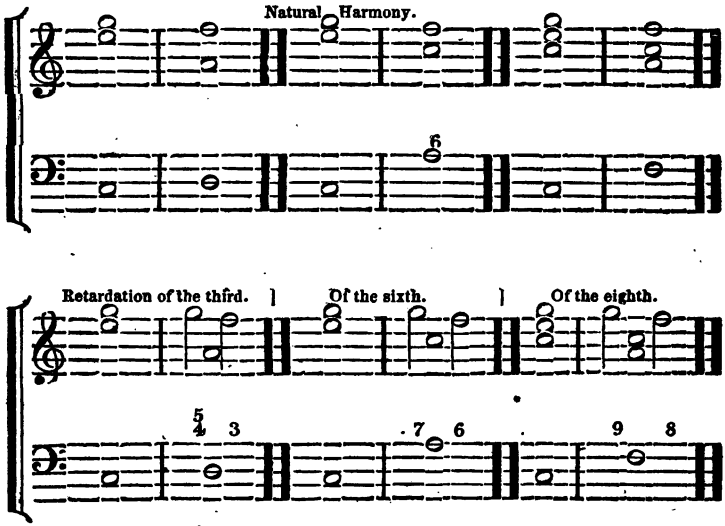
* Sometimes the prolonged note is a retardation of the note above, in this case instead of descending diatonically to be resolved, it must ascend.

Natural Harmony.

The sixth retarded by the fifth.

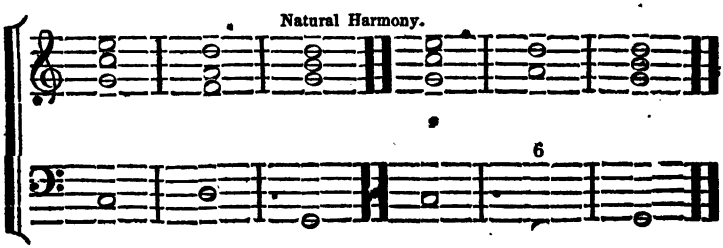
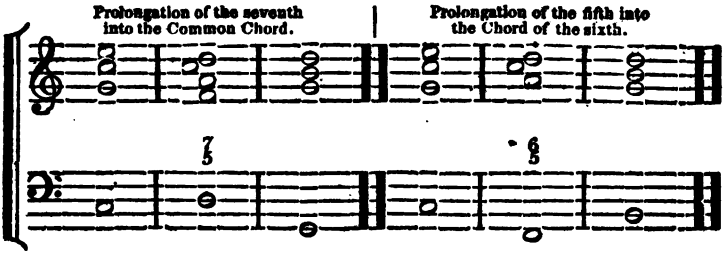


A prolongation is mostly but the retardation of a note of a chord, in this case it may be resolved in the chord itself into the note which it retarded.

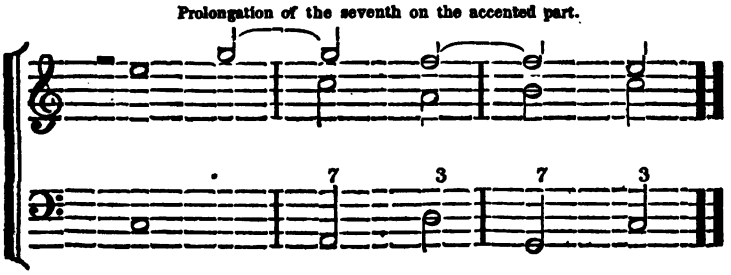
A chord in which one or several notes are retarded is called a discord of suspension.



Obs. I. A prolongation may be effected on a chord already complete, in this case the resolution necessarily takes place in the next chord, the prolonged descending one degree.

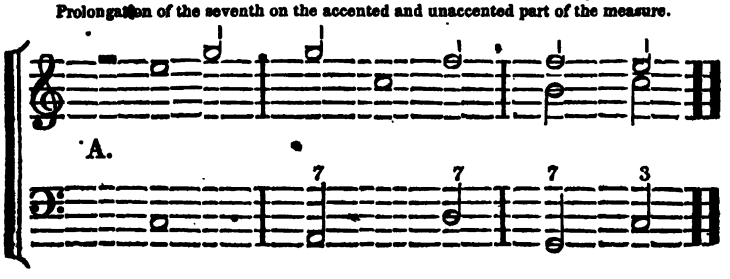
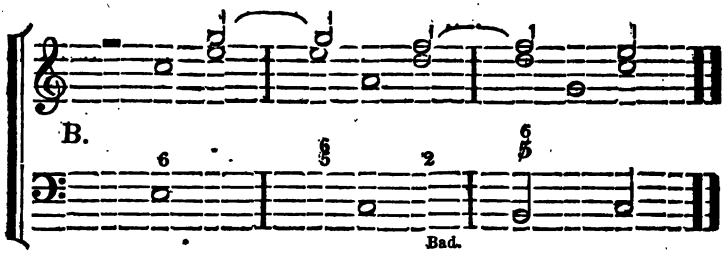
II. Prolongations produce discords of the second, third, fourth; or eleventh, fifth, sixth; or thirteenth, seventh, and ninth.



III. Prolongations are made on the accented parts of the measure, and their resolutions are effected on the unaccented parts.



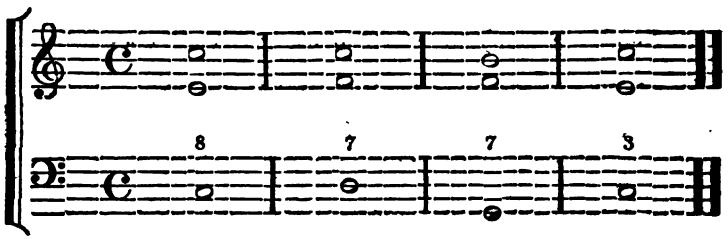
Obs. A prolongation may be introduced on the unaccented part of the measure, when another prolongation already occurs on the accented part. (A).

N. B. Prolongations on the unaccented part of the measure are not allowed in the base. (B).



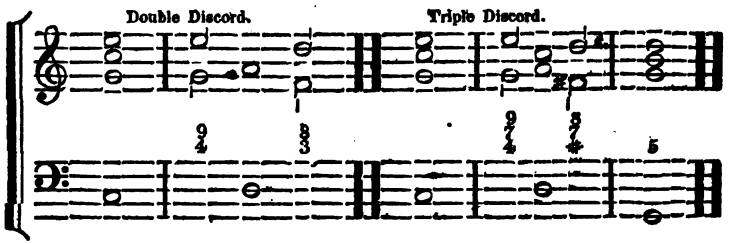
The note which forms a prolongation, should be, when struck as a discord, equal in duration to what it was when a concord in the foregoing measure.*

N. B. This rule, however, is not always strictly followed.

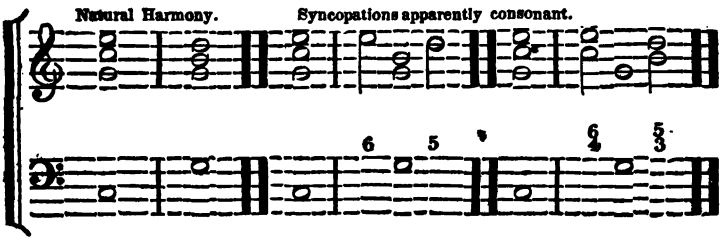


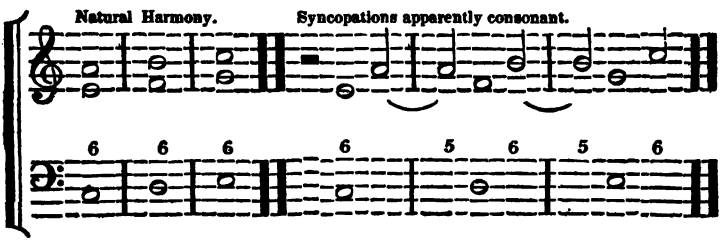
Two or three notes of a chord may be prolonged at the same time, this produces a single, a double, or a triple discord.

Each of the discords must be resolved, either in the first chord or in the following.

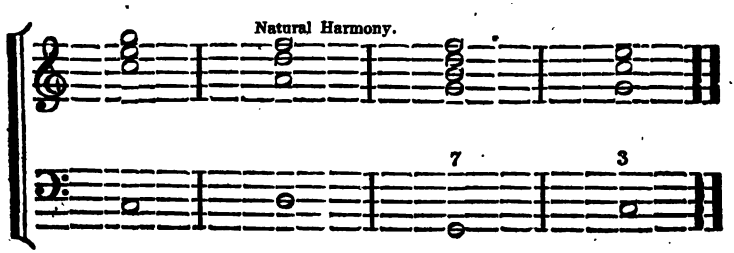


* The concord which precedes a discord is called its preparation.

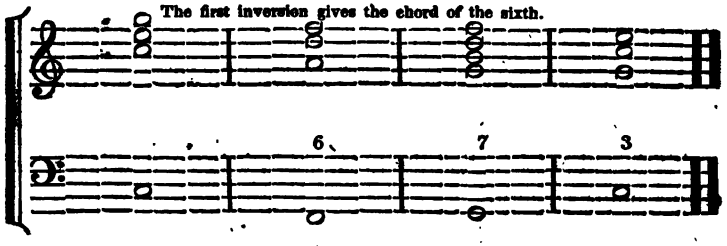
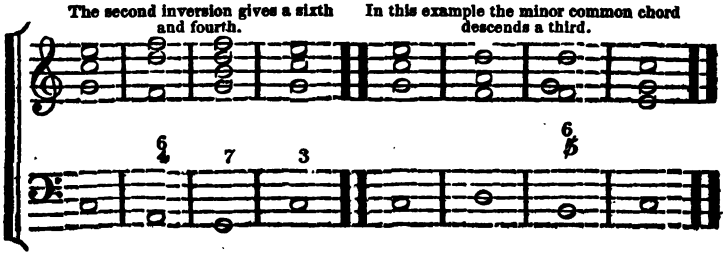
The prolonged note is a discord, when it forms an interval of second, or seventh, with one of the notes of the chord into which it is prolonged; when the prolonged note does not form a second or seventh, it is apparently a concord, although in reality a discord, since it is foreign to the harmony.

Another example of syncopations, apparently consonant.

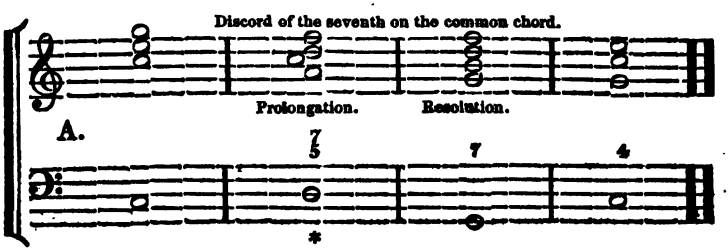


The second chord of the following example is the minor common chord on the second degree of the scale; on this chord and its inversions prolongations are introduced at A, B, C, D, p. 47 & 48.

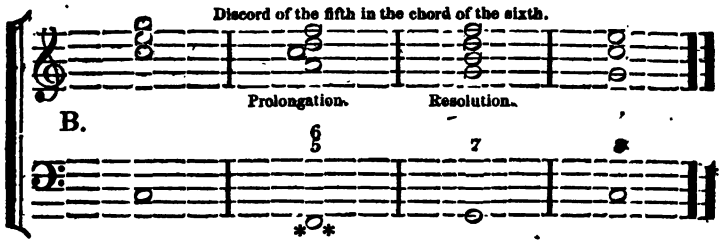


Inversions of the minor common chord given in the foregoing example.



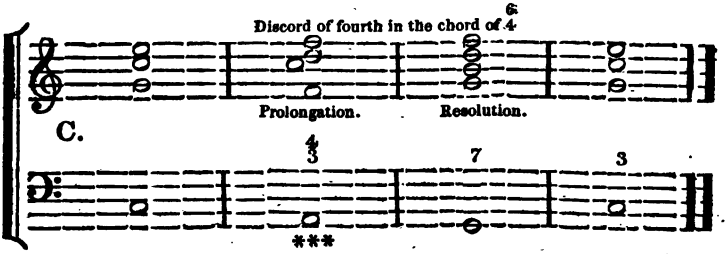
I. The prolongation of the note C, forms a seventh on the common chord of D; this discord is resolved by descending one degree into the chord of the dominant seventh.

* This chord is called the minor seventh and minor third.

II. The prolongation of C on F, forms a discord of the fifth in the chord of the sixth.



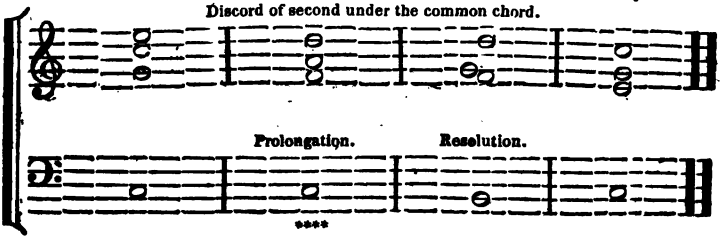
** This chord is called the great sixth, it is the first inversion of the minor seventh.

III. The prolongation of C on A, forms a discord of the third in the chord of the sixth and fourth.



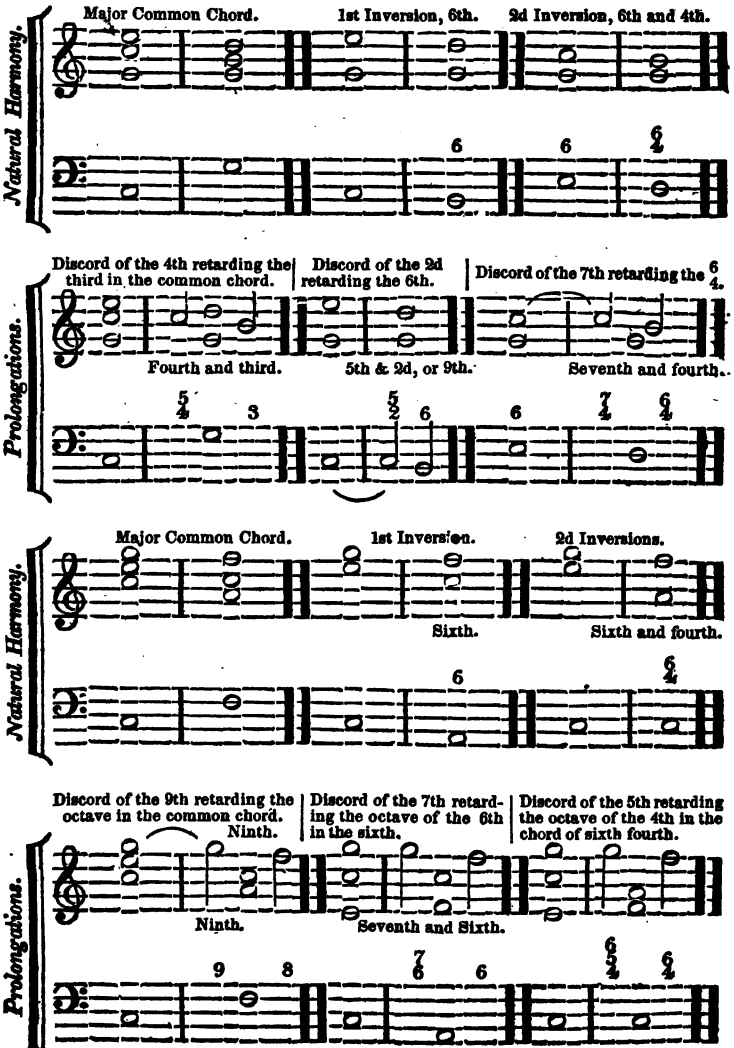
*** This chord is called the fourth and third, it is the second inversion of the minor seventh.

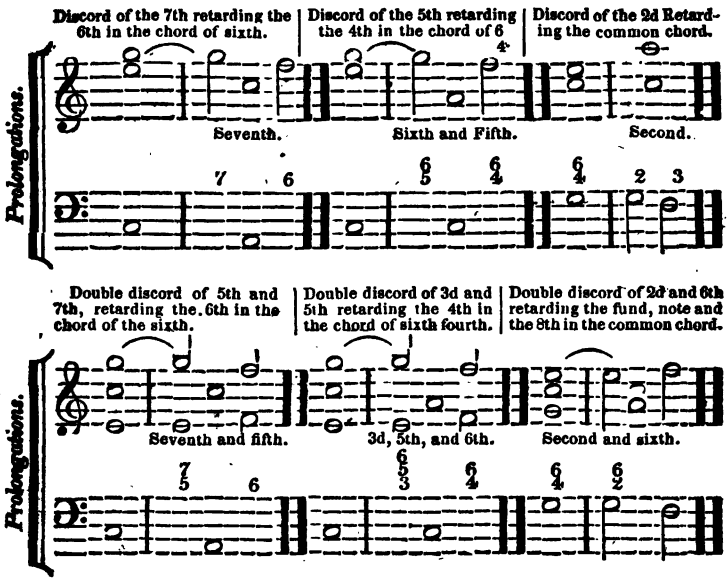
IV. The prolongation of C in the base under the chord of D, forms a discord of the second under the common chord.†



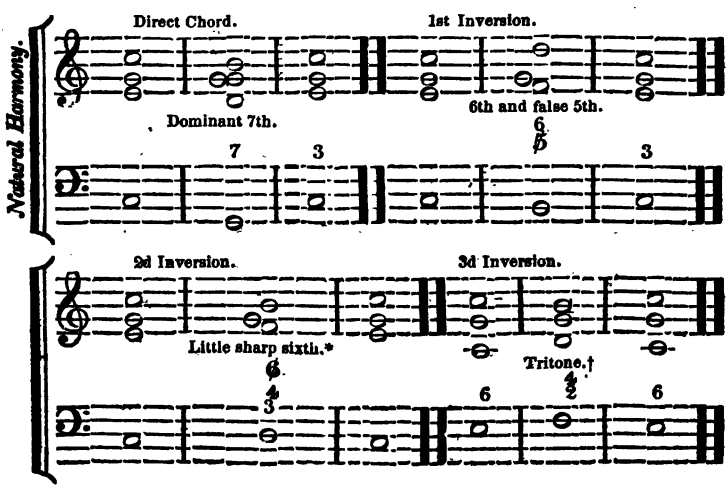
**** This chord is called chord of the second, it is the third inversion of the minor seventh and minor third.

† N. B. Although we say discord of the second, the base note is the real discord; the note which makes the interval of second against the base is the fundamental note of the chord: on the contrary, when it is said discord of the third, of the fourth, of the seventh, &c. these intervals are discords in the harmony.

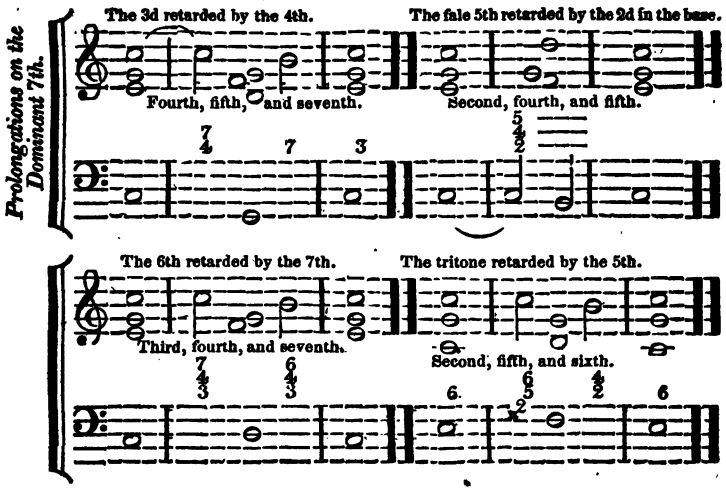
PROLONGATIONS EFFECTED ON THE MAJOR COMMON CHORD AND INVERSIONS.

Natural Harmony.
Major Common Chord.
1st Inversion, 6th.
2d Inversion, 6th and 4th.
Prolongations.
Discord of the 4th retarding the third in the common chord.
Discord of the 2d retarding the 6th.
Discord of the 7th retarding the 6/4.
Fourth and third.
5th & 2d, or 9th.
Seventh and fourth.
Natural Harmony.
Major Common Chord.
1st Inversion.
2d Inversions.
Sixth.
Sixth and fourth.
Prolongations.
Discord of the 9th retarding the octave in the common chord.
Ninth.
Discord of the 7th retarding the octave of the 6th in the sixth.
Discord of the 5th retarding the octave of the 4th in the chord of sixth fourth.
Ninth.
Seventh and Sixth.


Discord of the 7th retarding the 6th in the chord of sixth.
Discord of the 5th retarding the 4th in the chord of 6 4
Discord of the 2d Retarding the common chord.
Seventh.
Sixth and Fifth.
Second.
7 6
6 5
6 4
6 4
2 3
Prolongations.
Double discord of 5th and 7th, retarding the 6th in the chord of the sixth.
Double discord of 3d and 5th retarding the 4th in the chord of sixth fourth.
Double discord of 2d and 6th retarding the fund. note and the 8th in the common chord.
Seventh and fifth.
3d, 5th, and 6th.
Second and sixth.
7 5 6
6 5 3
6 4
6 4
6 2
Prolongations.

PROLONGATIONS EFFECTED ON THE DOMINANT SEVENTH AND INVERSIONS.



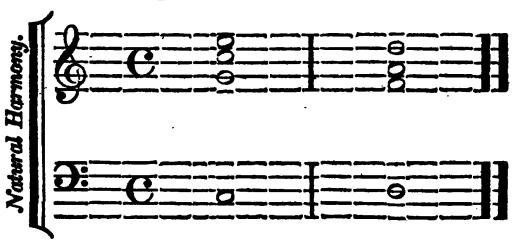
* Or chord of the fourth and third. † Or chord of the fourth and second.


Prolongations on the Dominant 7th.
The 3d retarded by the 4th.
Fourth, fifth, and seventh.
The fale 5th retarded by the 2d in the base.
Second, fourth, and fifth.
The 6th retarded by the 7th.
Third, fourth, and seventh.
The tritone retarded by the 5th.
Second, fifth, and sixth.

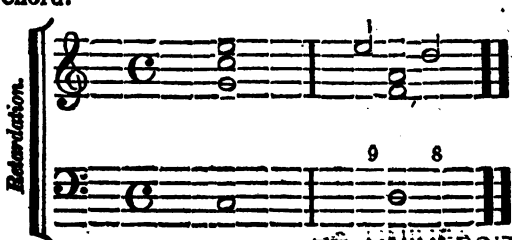
PROLONGATIONS ON THE MINOR COMMON CHORD.

EXAMPLE I.

In this example the second chord is minor.



No 1. Discord of the ninth, retarding the octave in the common chord.



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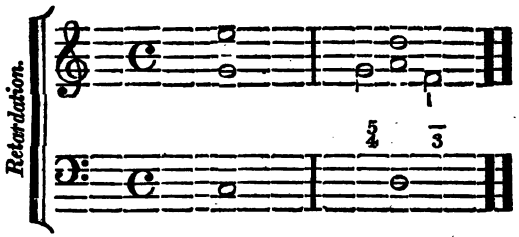
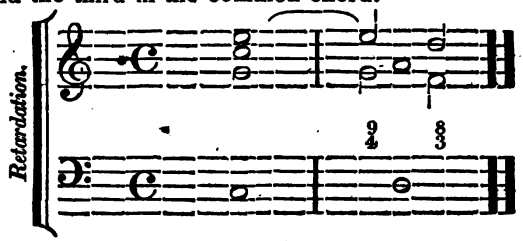
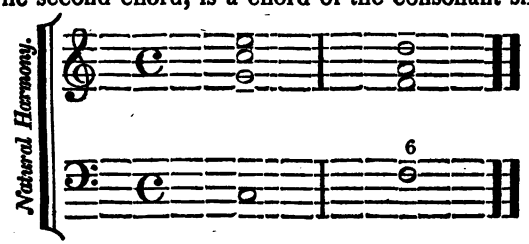
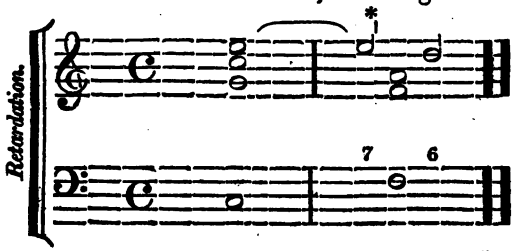
No. 2. Discord of the fourth, retarding the third in the common chord.

No. 3. Double discord of the ninth and fourth, retarding the eighth and the third in the common chord.

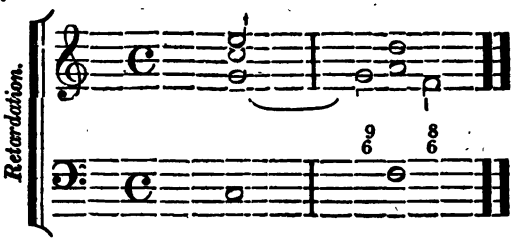
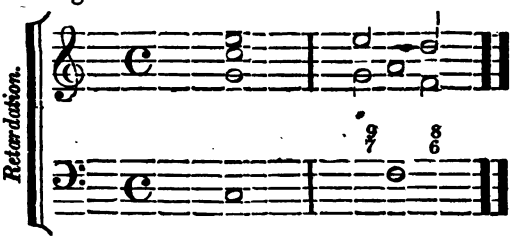


EXAMPLE II.

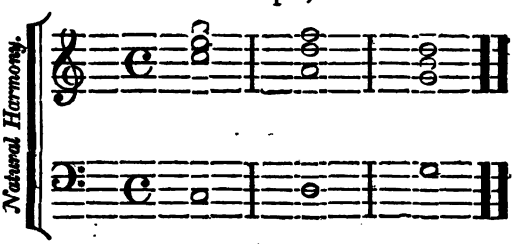
The second chord, is a chord of the consonant sixth.

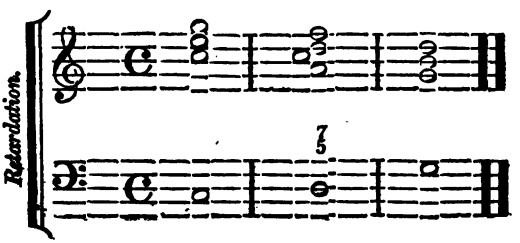
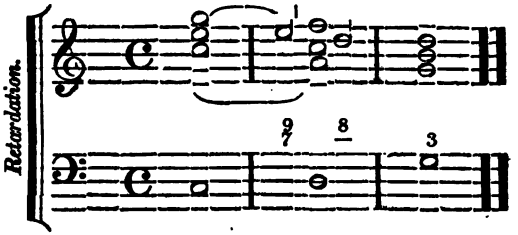
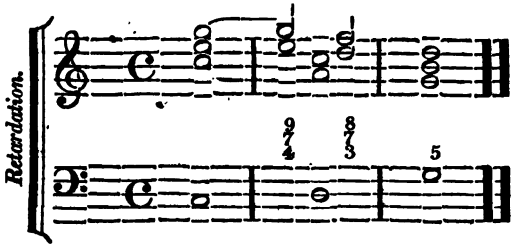


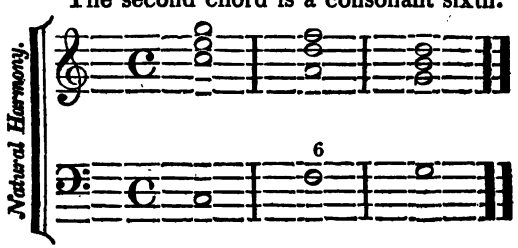
No. 1. Discord of the seventh, retarding the sixth.

* This chord is termed major seventh.

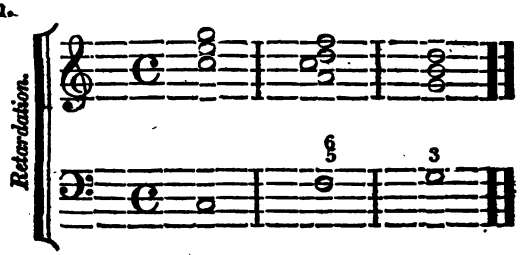
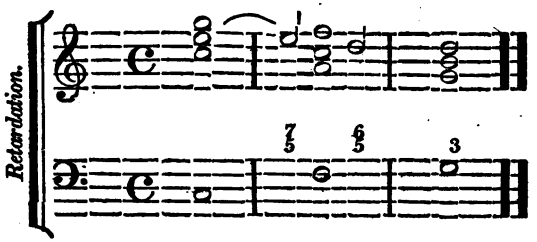
No. 2. Discord of the 9th, retarding the 8ve. in the chord of the sixth.

No. 3. Double discord of the seventh and ninth, retarding the sixth and the eighth in the chord of the sixth.

EXAMPLE 3.

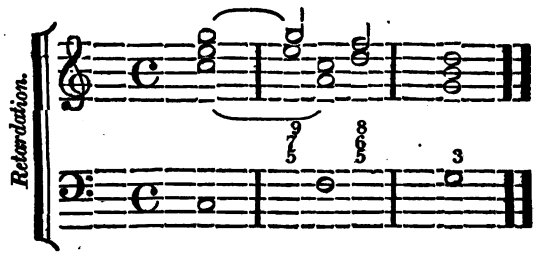
The second chord of this example, is a minor common chord.



No. 1. Discord of the seventh on the common chord.

No. 2. Double discord of the seventh, on the common chord; and of the ninth retarding the eighth.

No. 3. Triple discord of the seventh on the common chord; and of the ninth and fourth, retarding the eighth and the third.

The second chord is a consonant sixth.

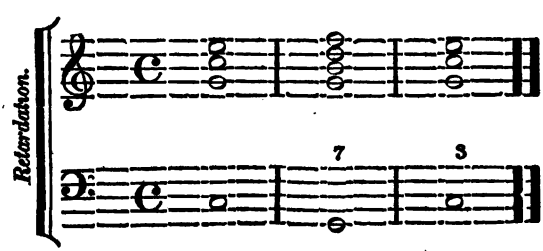


No. 1. Discord of the fifth, introduced in the chord of the sixth.

No. 2. Double discord of the fifth, in the chord of the sixth, and of the seventh retarding the sixth.

No. 3. Triple discord of the fifth, in the chord of the sixth; and of seventh and ninth, retarding the sixth and eighth.

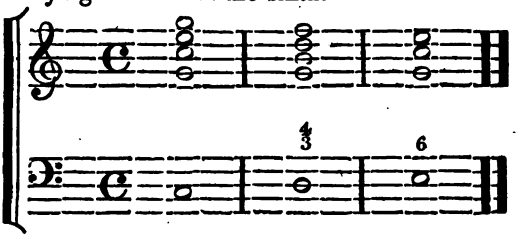


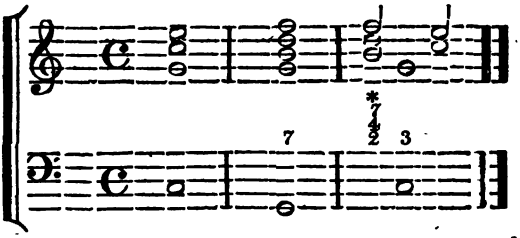
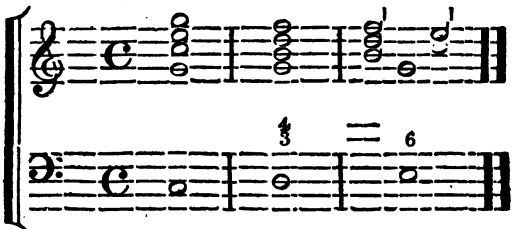
The chords of the dominant seventh, diminished seventh, and that of the seventh and flat fifth, (seventh on the leading note), may be prolonged on the tonic and on the mediant.

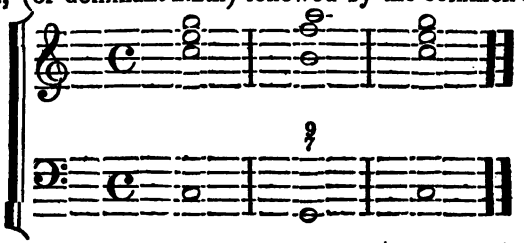
Chord of the dominant seventh, followed by the tonic, carrying the common chord.



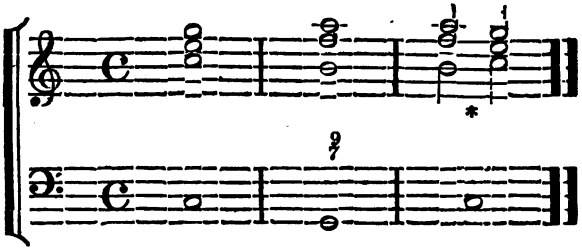
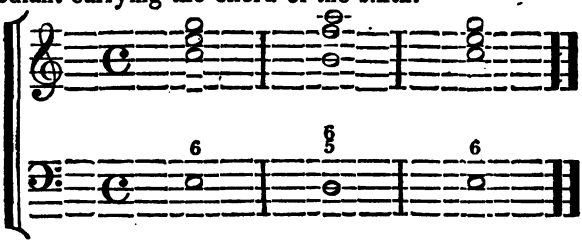
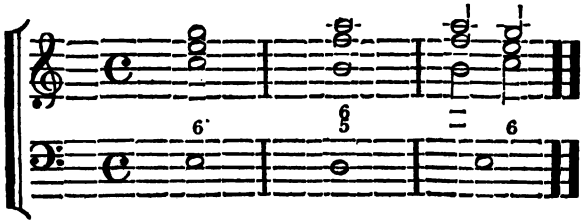
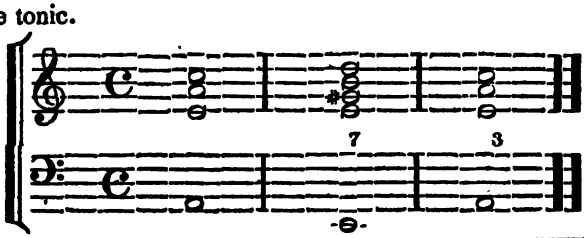
Second inversion of the dominant seventh, followed by the mediant, carrying a chord of the sixth.

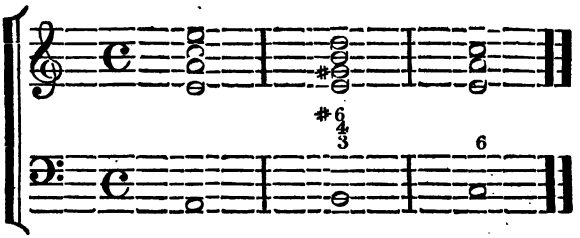


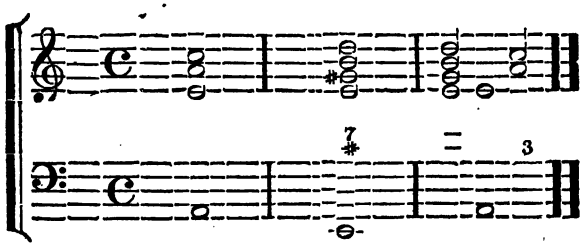
Prolongation of the dominant seventh, on the tonic, by which the common chord is retarded.

Prolongation of the dominant seventh, on the mediant, by which the sixth is retarded.

Chord of the minor seventh and false fifth, introduced on the dominant, (or dominant ninth) followed by the common chord.



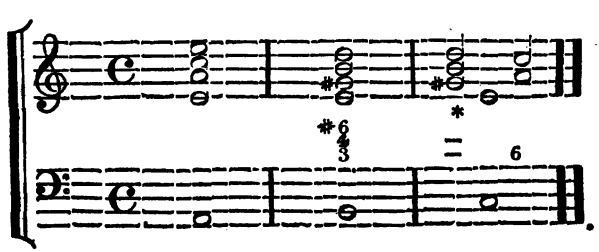
* This chord is termed the superfluous seventh or eleventh on the tonic.

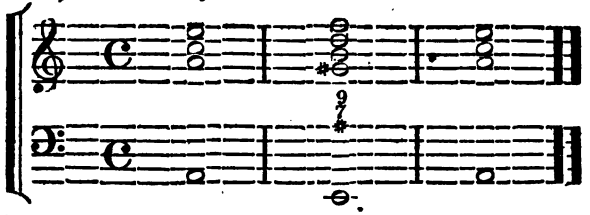
Prolongation of the seventh and flat fifth on the tonic, retarding the common chord.

First inversion of the minor seventh and flat fifth, followed by the mediant carrying the chord of the sixth.

Prolongation of the seventh on the mediant, by which the sixth is retarded.

Chord of the dominant seventh in a minor mode, followed by the tonic.

* This chord is termed the thirteenth and major sixth, or thirteenth on the tonic.

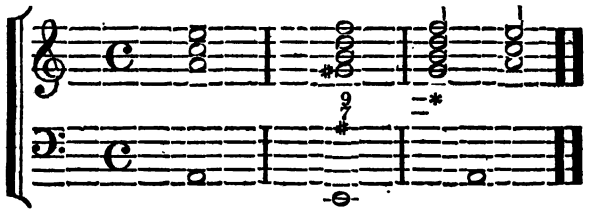
Second inversion of the dominant seventh, followed by the mediant carrying a chord of the sixth.

Prolongation of the dominant seventh on the tonic, retarding the common chord.



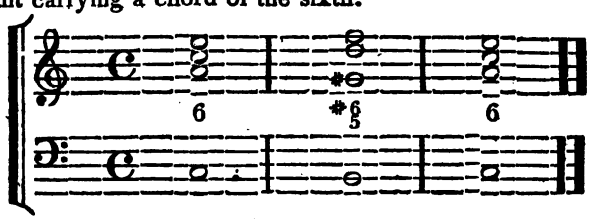
Prolongation of the dominant seventh on the mediant, retarding the chord of the sixth.

Obs. In this prolongation the mediant forms with the leading note the interval of an extreme sharp fifth.

* This chord is termed the superfluous fifth.

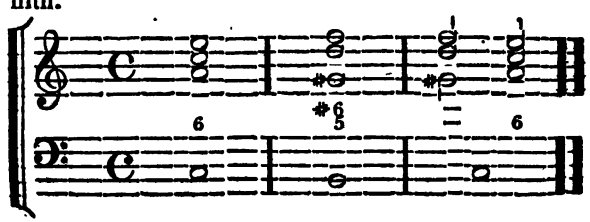
Chord of the diminished seventh on the dominant, (dominant minor ninth), followed by the tonic.

Prolongation of the diminished seventh on the tonic, retarding the common chord.



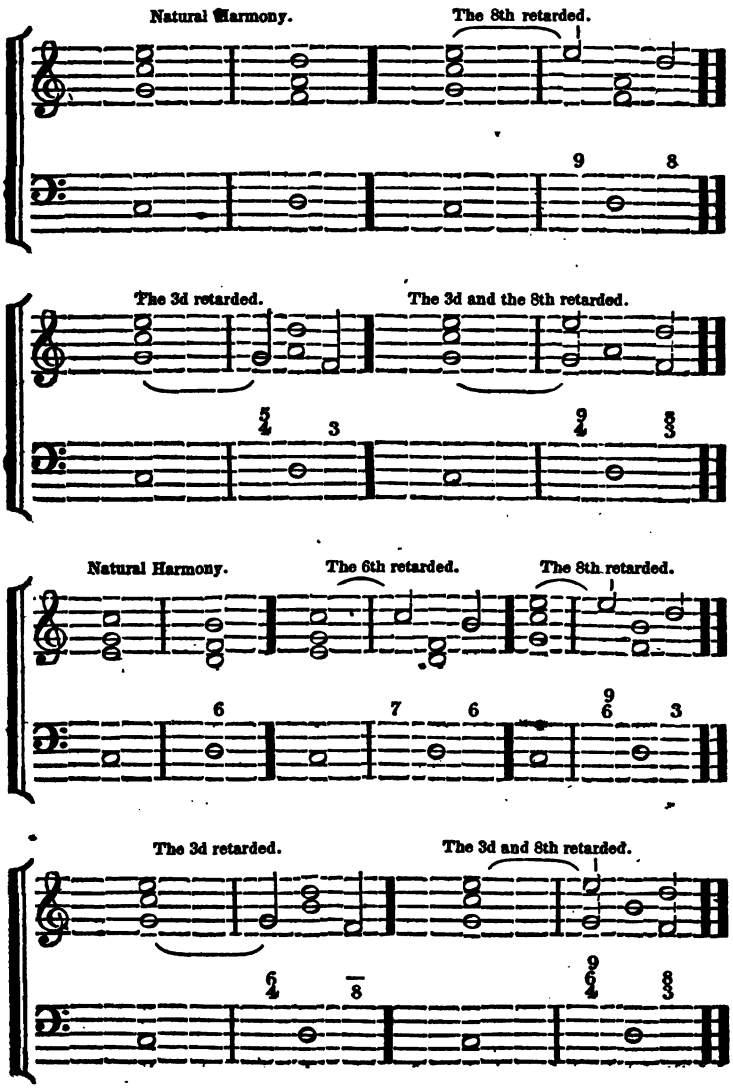
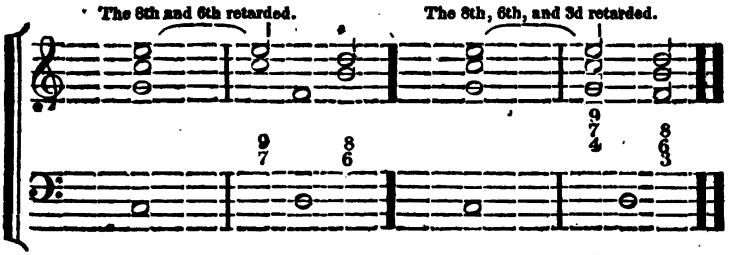
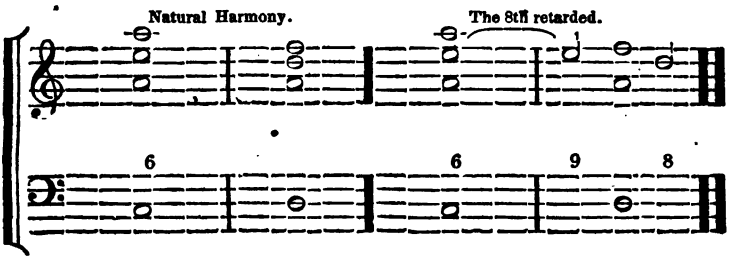
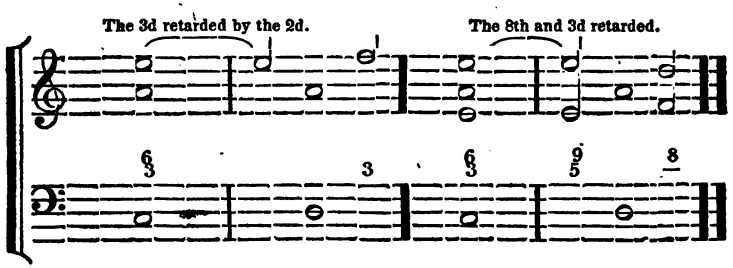
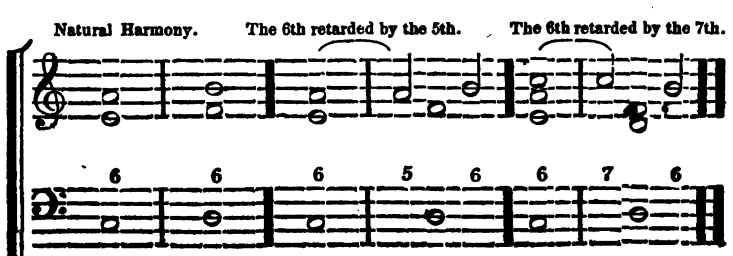
First inversion of the diminished seventh, followed by the mediant carrying a chord of the sixth.

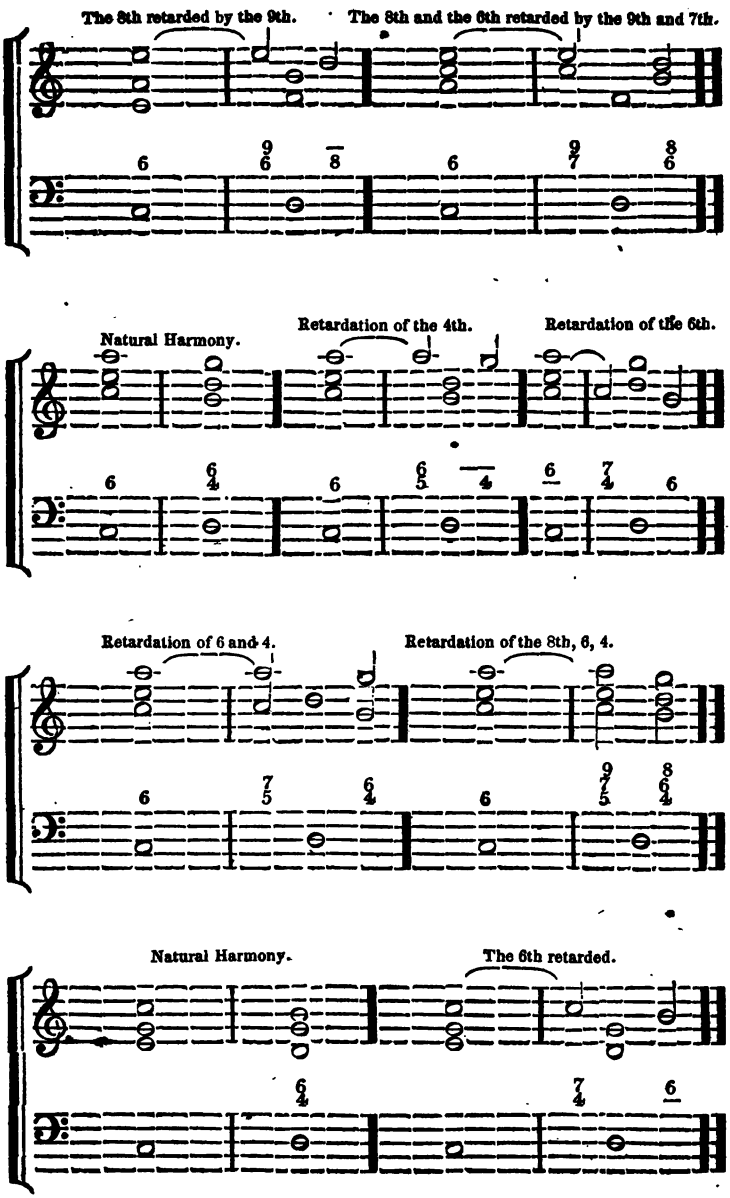


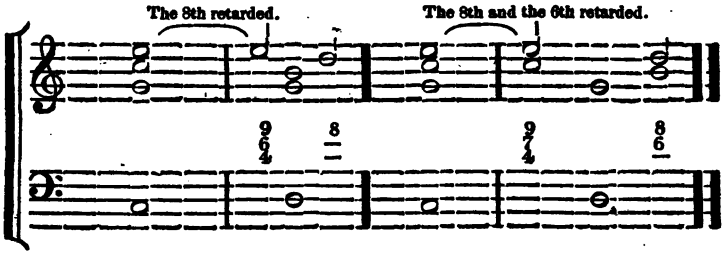
Prolongation of the diminished seventh on the mediant, by which the sixth is retarded.

N. B. This prolongation gives the interval of the extreme sharp fifth.

* This chord is termed the superfluous 7th and minor 6th, or 13th on the tonic.

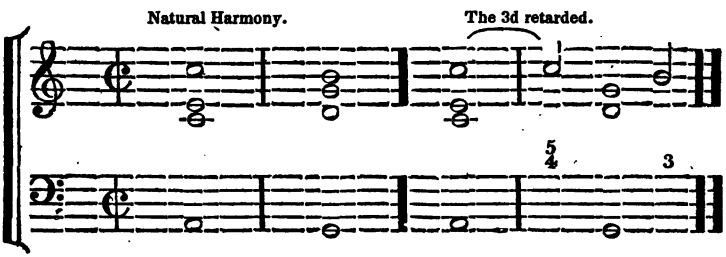
Examples of the various progressions of the base with the chords, (natural and artificial), which can be introduced.

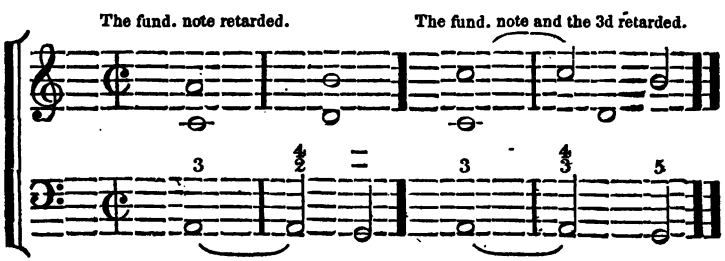
1. The base ascends a second or descends a seventh.

The 8th and 6th retarded.
The 8th, 6th, and 3d retarded.

Natural Harmony.
The 8th retarded.

The 3d retarded by the 2d.
The 8th and 3d retarded.

Natural Harmony.
The 6th retarded by the 5th.
The 6th retarded by the 7th.

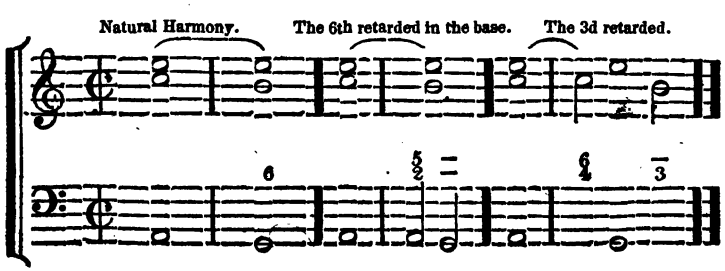
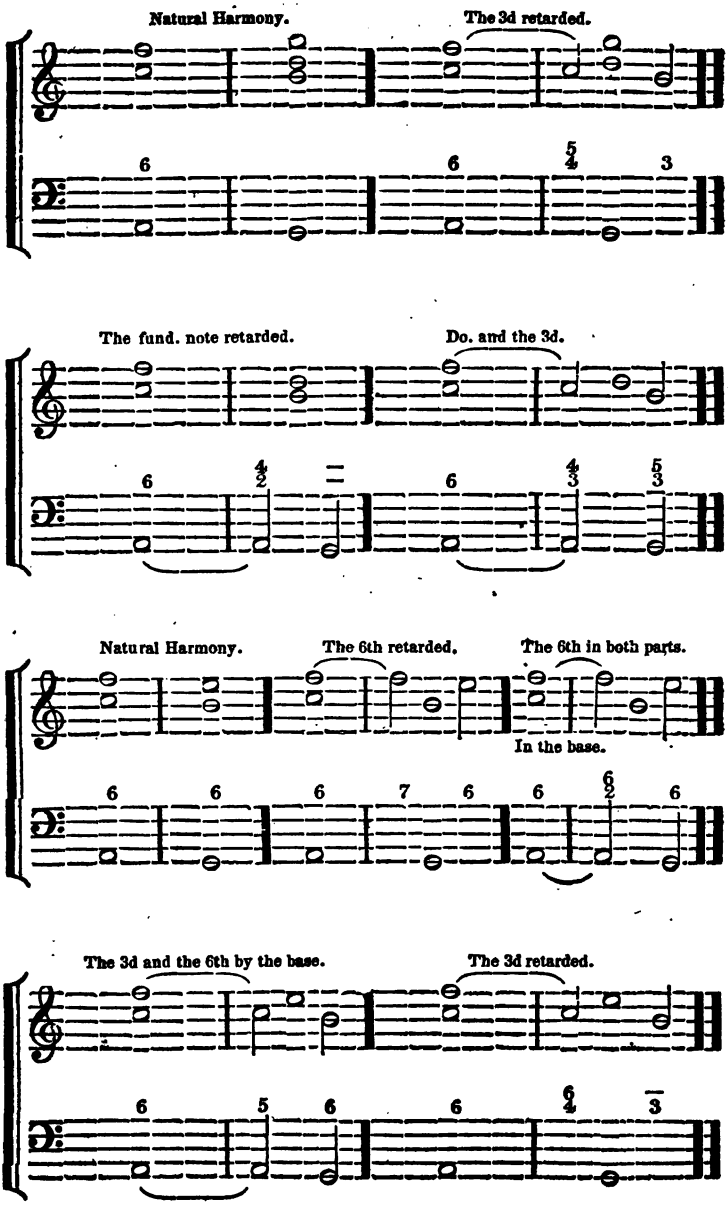

The 8th retarded by the 9th.
The 8th and the 6th retarded by the 9th and 7th.
Natural Harmony.
Retardation of the 4th.
Retardation of the 6th.
Retardation of 6 and 4.
Retardation of the 8th, 6, 4.
Natural Harmony.
The 6th retarded.

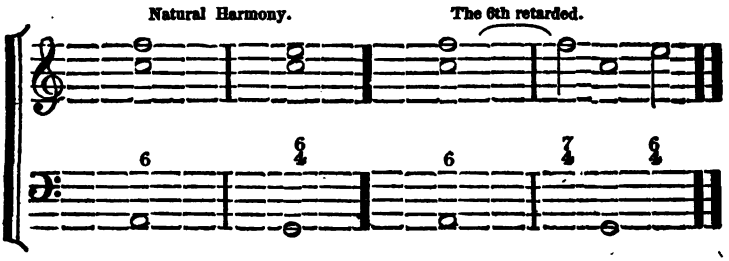
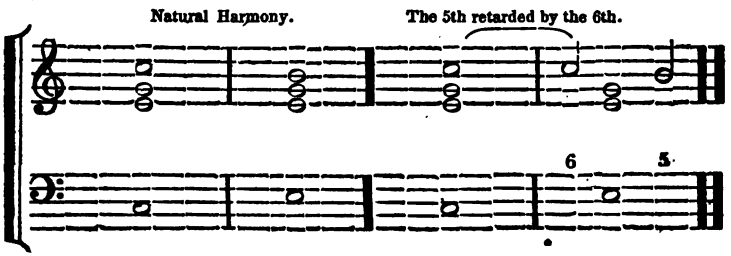
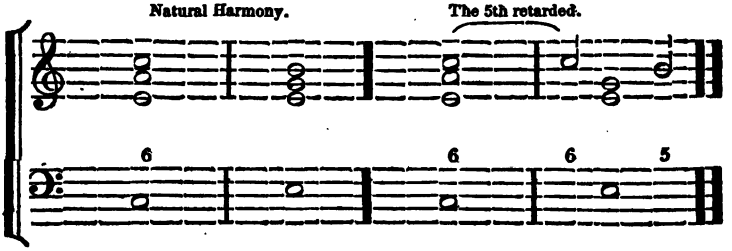
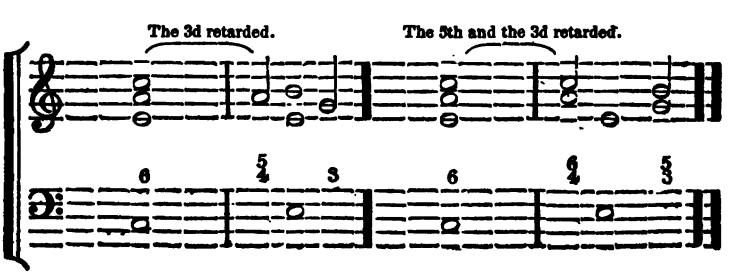
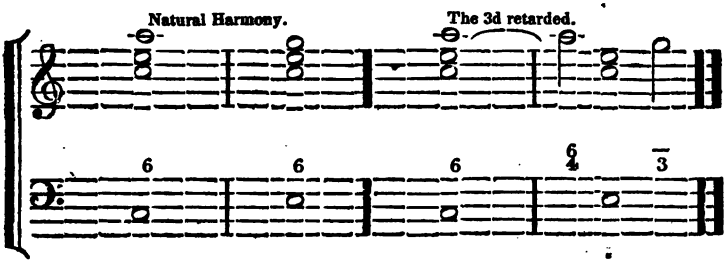


No. 2. The base descends a second or ascends a seventh.

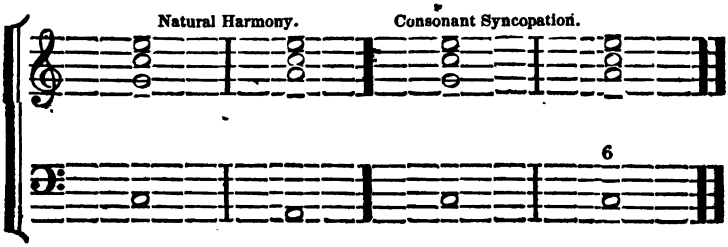


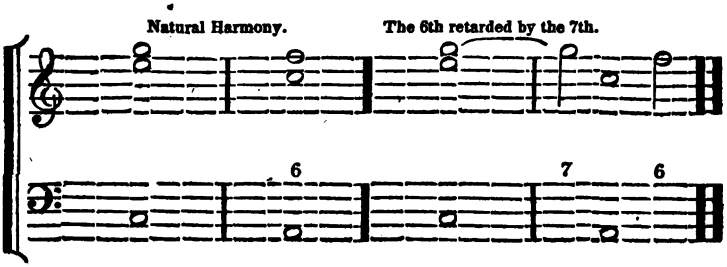
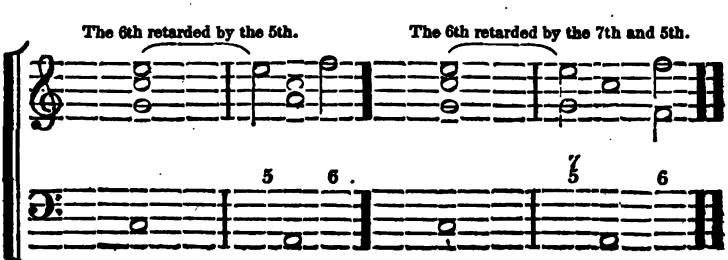


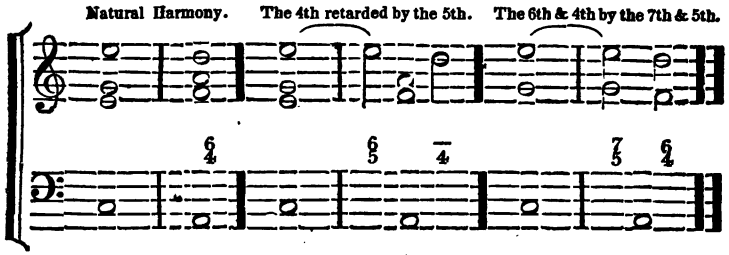


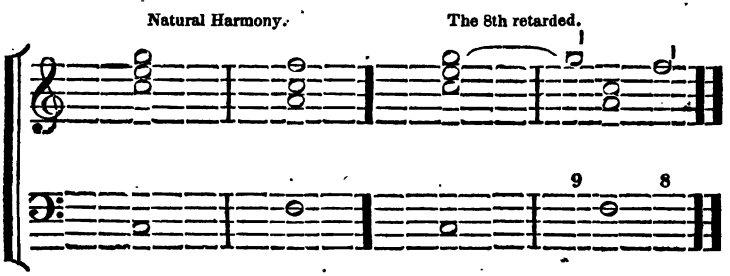
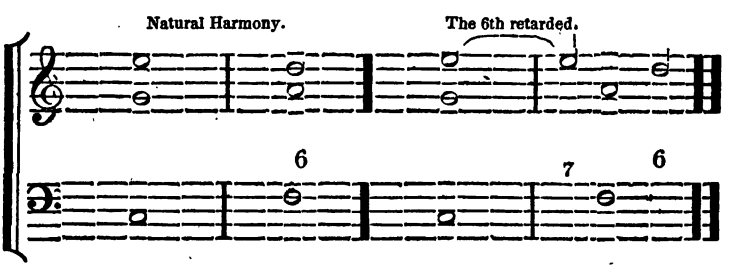
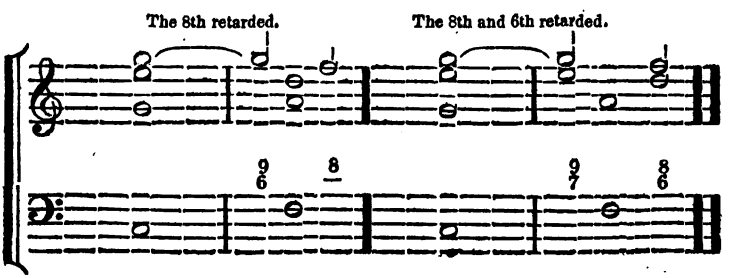
Natural Harmony.
The 3d retarded.
The fund. note retarded.
Do. and the 3d.
Natural Harmony.
The 6th retarded.
The 6th in both parts.
In the base.
The 3d and the 6th by the base.
The 3d retarded.

No. 3. The base ascends a third or descends a sixth.



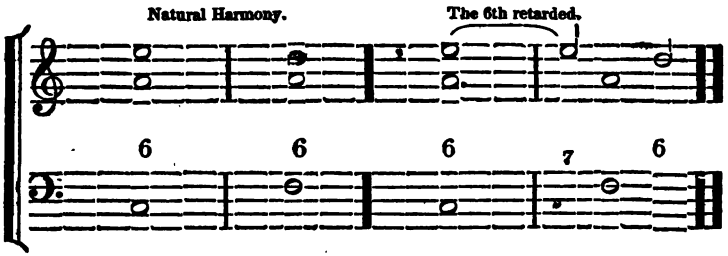
No. 4. The base descends a third or ascends a sixth.

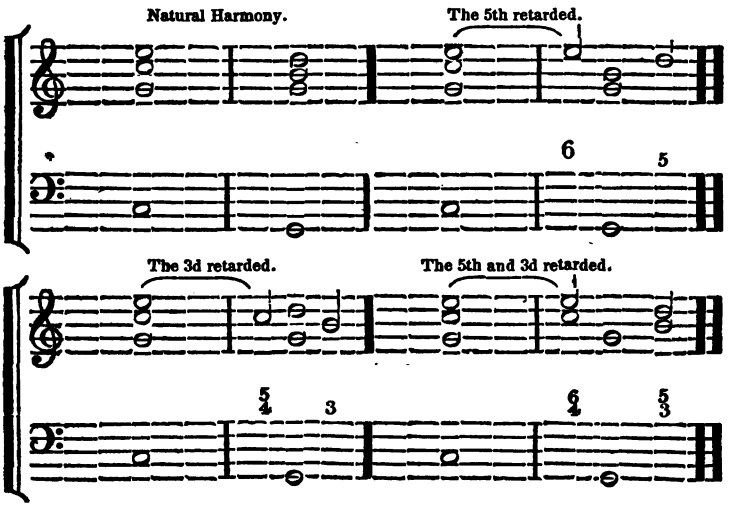






No. 5. The base ascends a fourth or descends a fifth.





No. 6. The base descends a fourth or ascends a fifth.

CHAPTER VIII.

OF CADENCES.

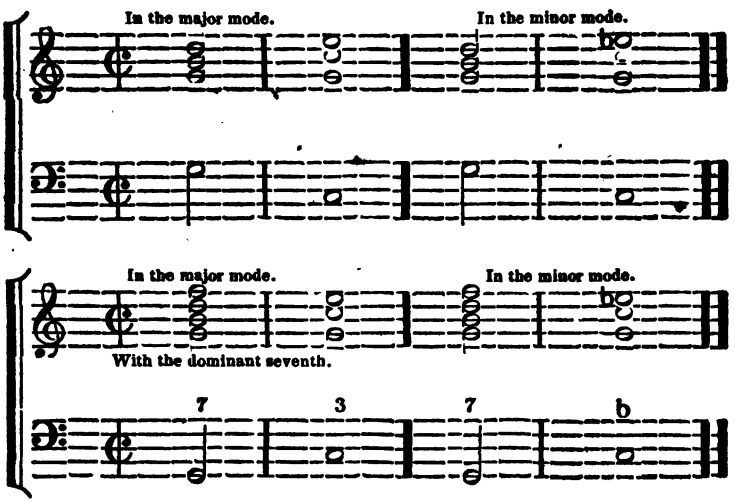
A cadence is the termination or close of a musical sentence. The resolution of a discord into a concord is likewise called a cadence. There are two principal cadences: the first is made on the tonic, the second on the dominant.

The cadence on the tonic ends completely the sense of the musical sentence, and is termed a perfect cadence.

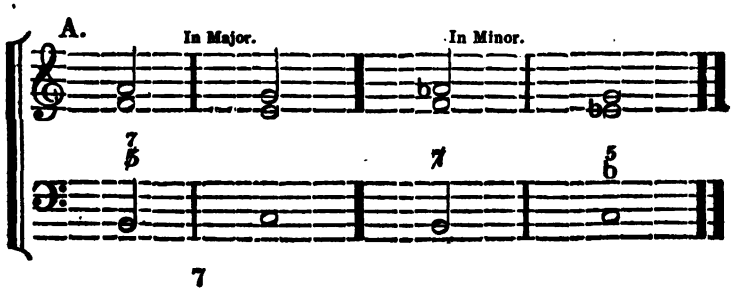
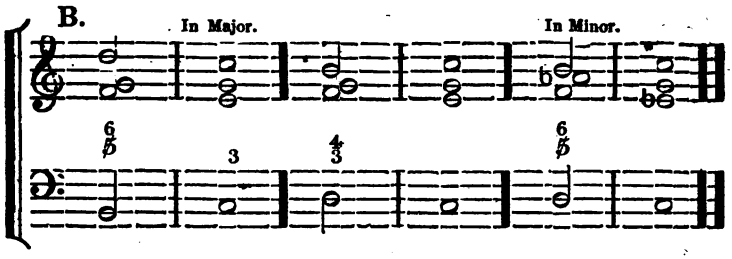
The cadence on the dominant suspends the sense of the sentence without terminating the same, and is called the imperfect cadence.

The perfect cadence is formed by the resolution of the dominant seventh on the tonic.

PERFECT CADENCES.

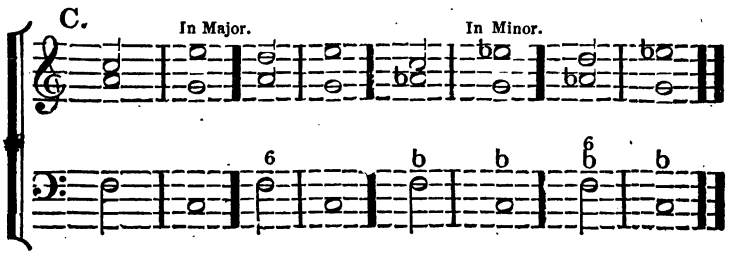


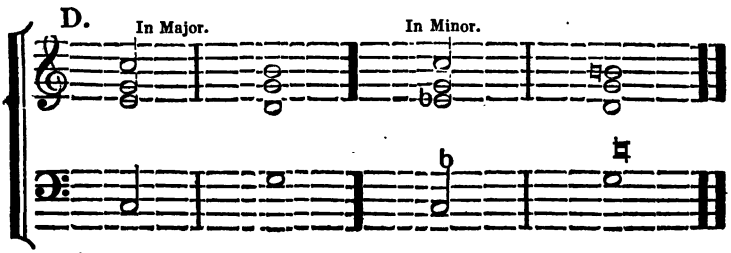
Obs. The resolution on the tonic of the imperfect and diminished seventh forms likewise a perfect cadence, but it is seldom used as a final cadence. (A.)

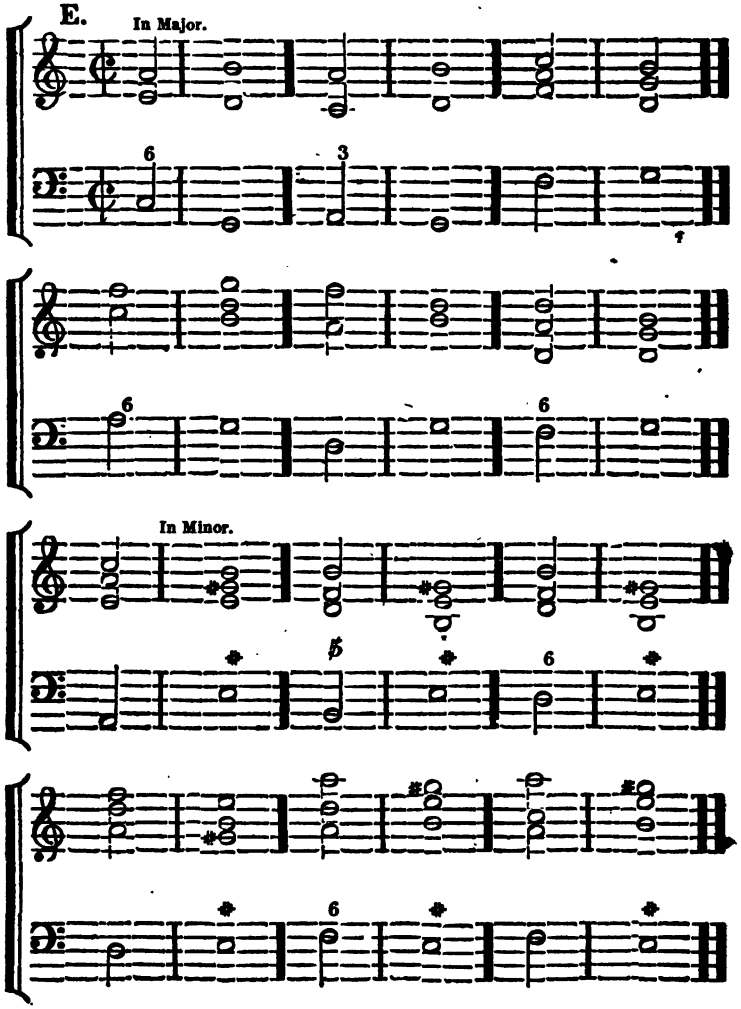
The inversions of the dominant and diminished sevenths, resolved on the tonic also form perfect cadences. (B.)

The cadence on the tonic may also be introduced by the subdominant, bearing a common chord or a chord of the added sixth. This cadence does not terminate a sentence so satisfactorily as the perfect cadence, however, it is sometimes used at the end of a piece in sacred music, and is called the plagal cadence, or imperfect cadence. (C.)

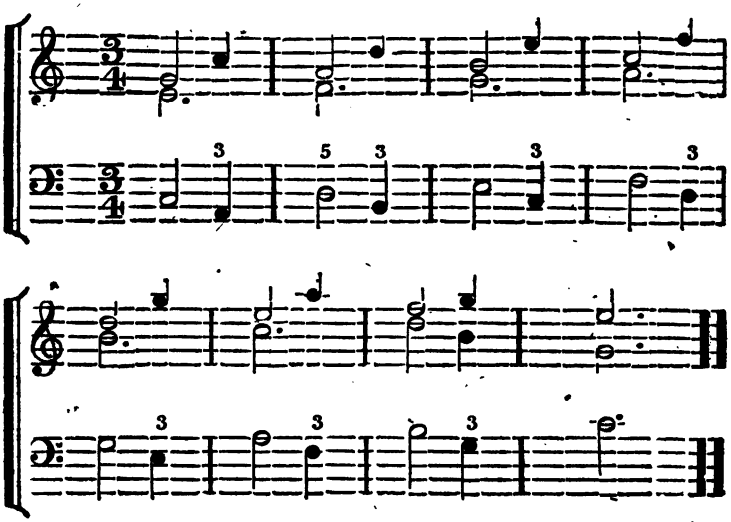
The cadence on the dominant takes place when the tonic rests on the dominant. (D.)

PLAGAL CADENCES.

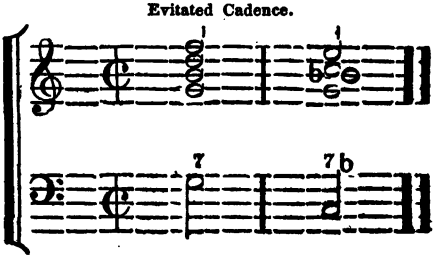


CADENCES ON THE DOMINANT.

The cadence on the dominant is likewise the transition of any other chord to the dominant to make a pause; this cadence is not final, and only suspends the sense of the musical sentence. (E.)

CADENCES ON THE DOMINANT.

A momentary pause can be made on any of the notes of the scale; this gives an intermediate cadence, which is used previous to one of the principal cadences being introduced.

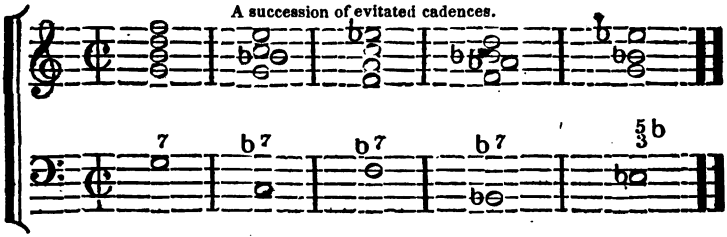
INTERMEDIATE CADENCES.

The perfect cadence may be evitated, interrupted, or broken by changing the resolution of the dominant seventh, which indicates that cadence.

The perfect cadence is evitated by adding a minor seventh to the common chord on which the close was to be made, that is to say, by changing the tonic into a dominant seventh; this gives successively two dominant sevenths descending by fifths.

Evitated Cadence.

We may continue to evitate this cadence, and play a succession of dominant sevenths descending by fifths.

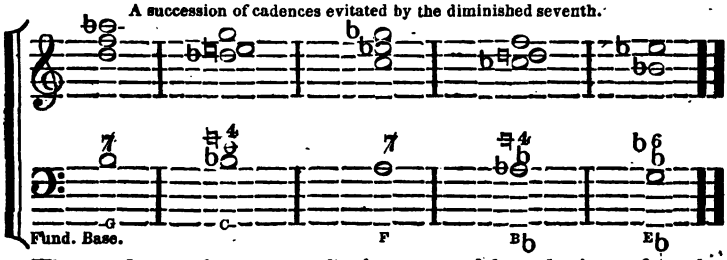
Obs. That the key is changed as soon as one dominant seventh succeeds another.

A succession of evitated cadences.



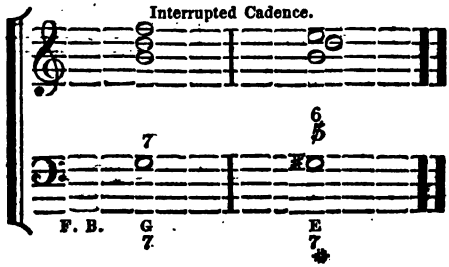
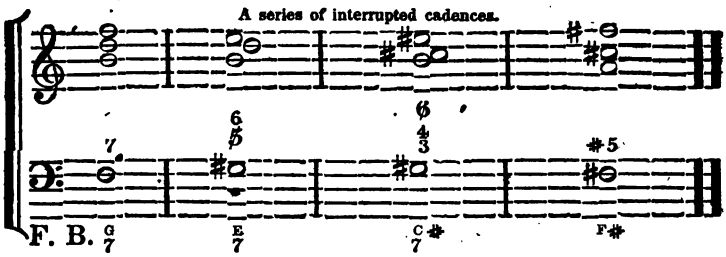
In the minor mode the succession of dominant sevenths is as in major. Instead of dominant sevenths, diminished sevenths may be played, which these dominants produce, observing that all the parts must descend by semitones. (See the article genera.)

A succession of cadences evitated by the diminished seventh.

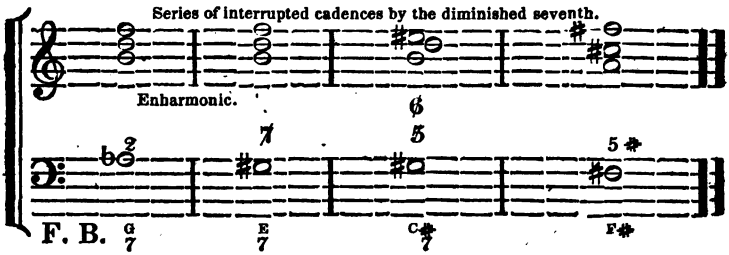


The perfect cadence may be interrupted by playing after the dominant seventh, which indicates the cadence, another dominant seventh, whose fundamental sound is a third below the first seventh.

We may continue to interrupt the cadence, and play a succession of dominant sevenths, the fundamental base descending by thirds.

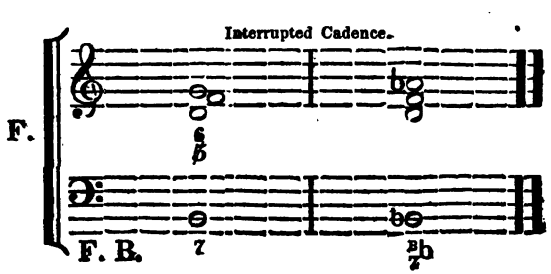
Interrupted Cadence.



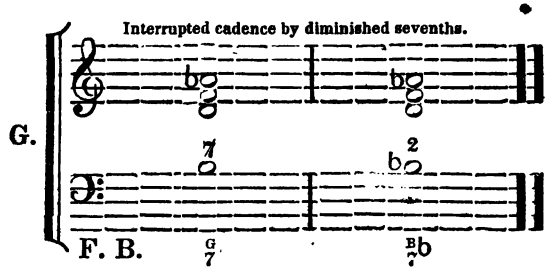
N. B. In the minor mode diminished sevenths may be used instead of dominant sevenths: this succession gives the enharmonic. (See genera.)



The perfect cadence may be also interrupted by playing after the dominant seventh another dominant seventh a third above the other. (F.)

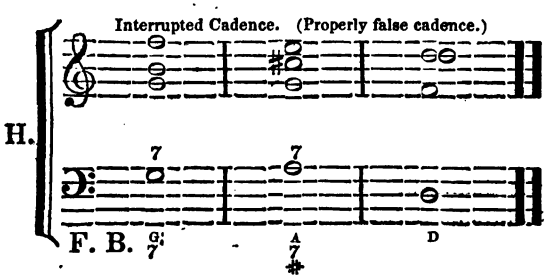
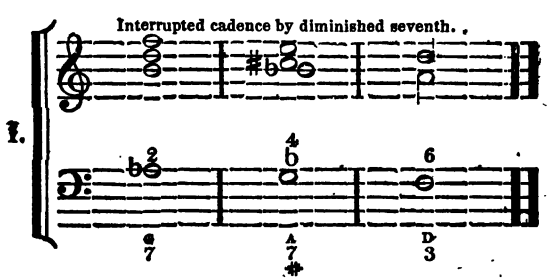
N. B. In the minor mode diminished sevenths may be used instead of dominant sevenths. (G.).





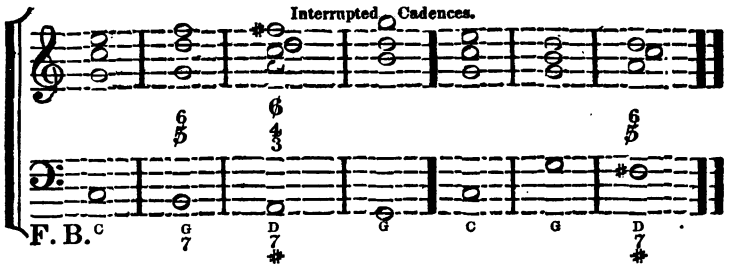
The perfect cadence may be interrupted by playing after the dominant seventh another dominant seventh, whose fundamental base is a second above the first. (H.)

N. B. In the minor mode diminished sevenths may be used instead of dominant sevenths. (I.)

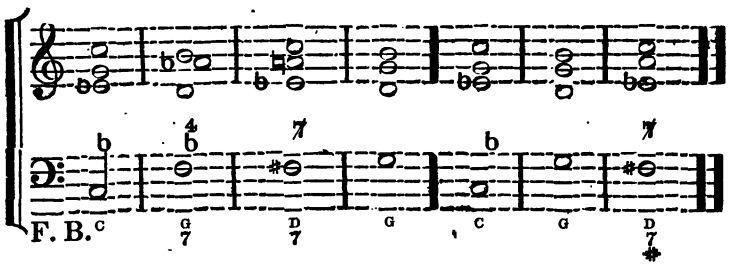


The perfect cadence may be interrupted by playing after the dominant seventh another dominant seventh, whose fundamental base is a fourth below the first.

Interrupted Cadences.



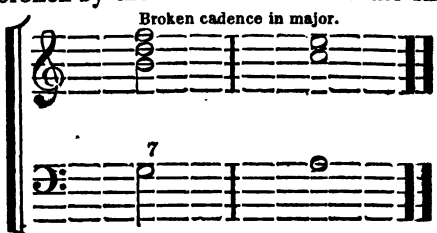
N. B. In minor, diminished sevenths may be used instead of dominant sevenths.

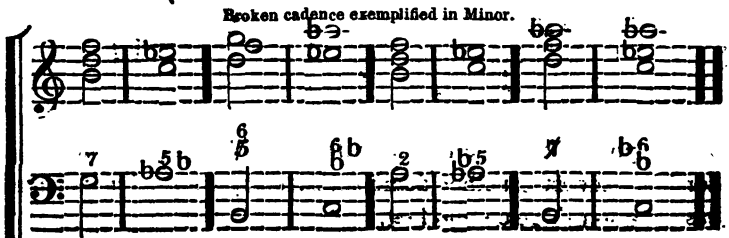


The perfect cadence is broken, when after the dominant seventh a common chord, different from the common chord indicated by the dominant seventh, is played.

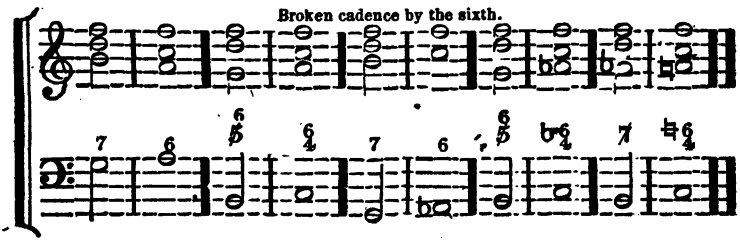
Cadence broken by the common chord on the sixth note.

Broken cadence in major.

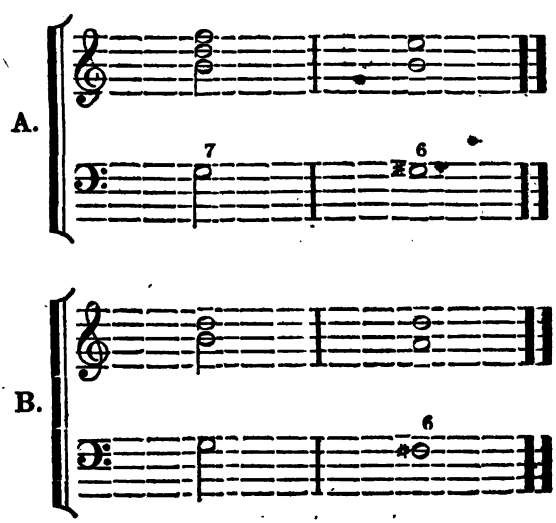


Broken cadence exemplified in Minor.

This way of breaking the cadence is frequently used, and is called a broken cadence. It may be variously used in minor.

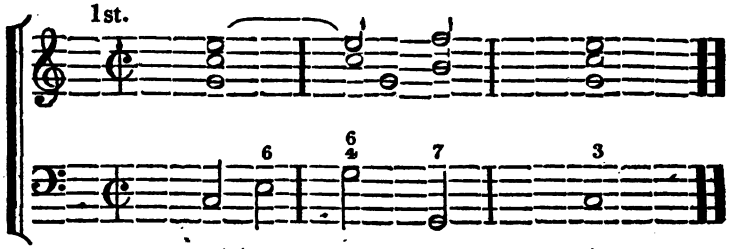
Perfect cadence broken by the chord of the sixth on the 6th degree, with the different ways of making use of it in both modes.

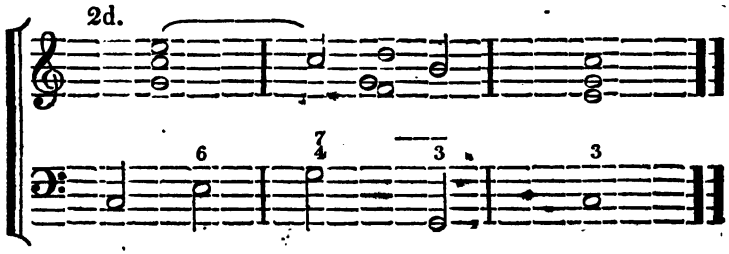


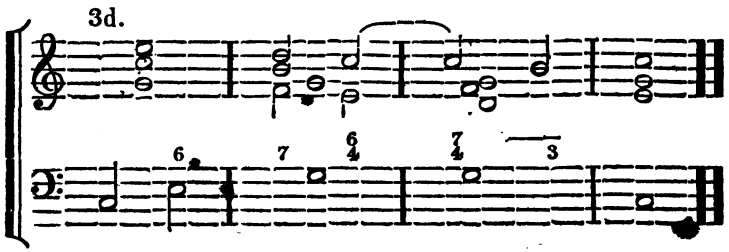
Perfect cadence broken by the chord of the sixth on the dominant, become by an alteration, leading note to the relative minor mode. (A.)

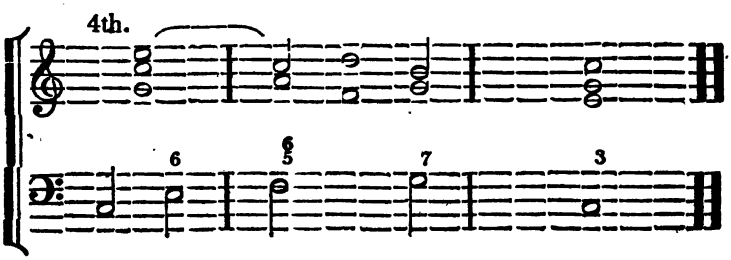
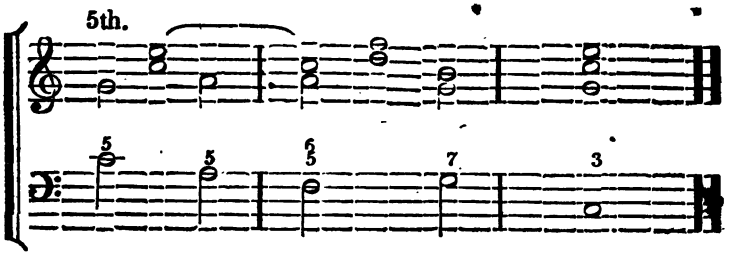
Perfect cadence broken by the chord of the sixth on the fourth degree, becomes by an alteration leading note to the dominant. (B.)

Examples of the progressions most common to the base, to introduce perfect cadences.

1st.



2d.

3d.



4th.

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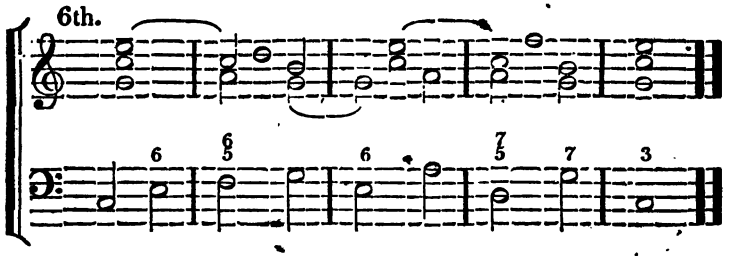
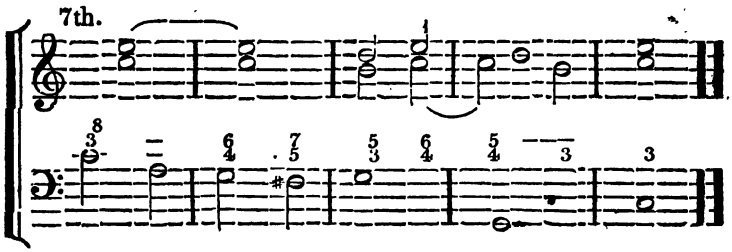
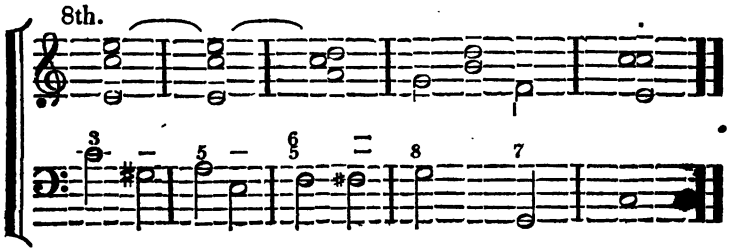
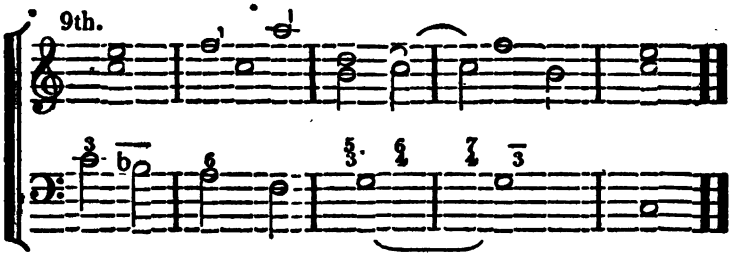

6th.


7th.


8th.

9th.

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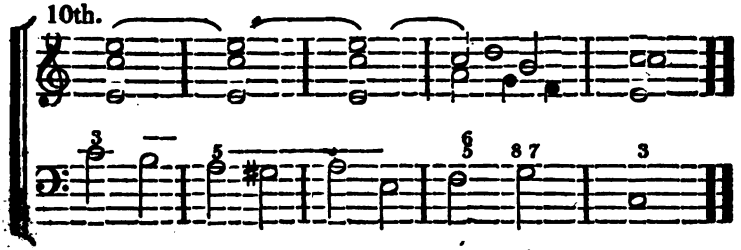
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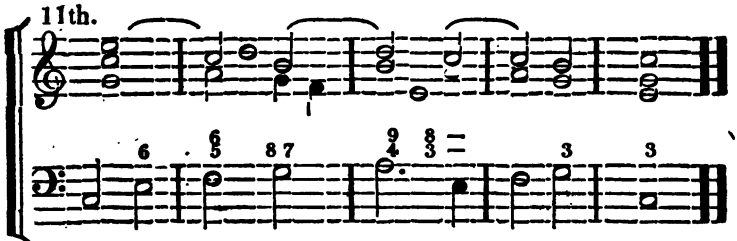
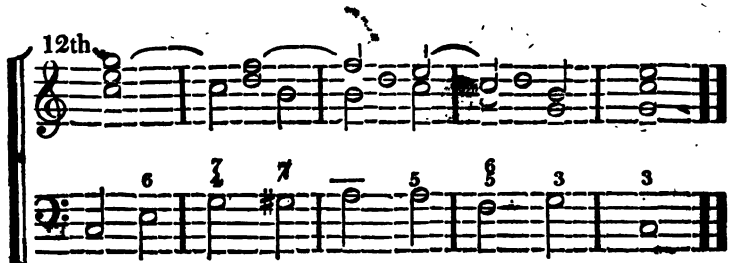


12th.

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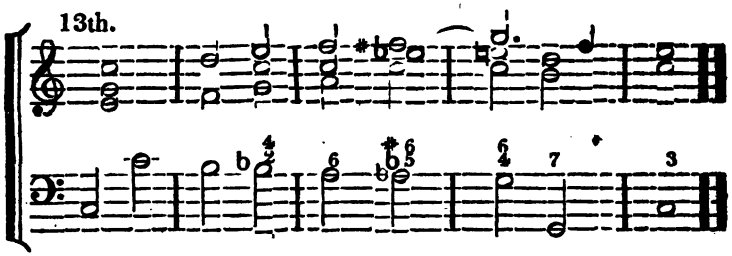
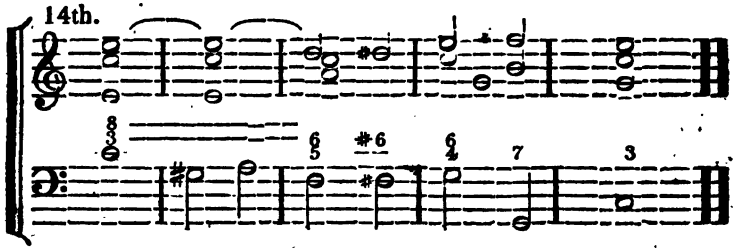


14th.

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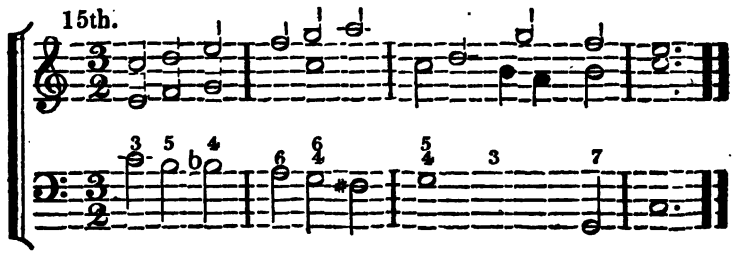
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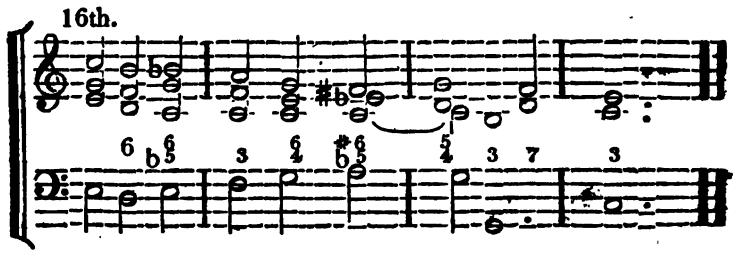
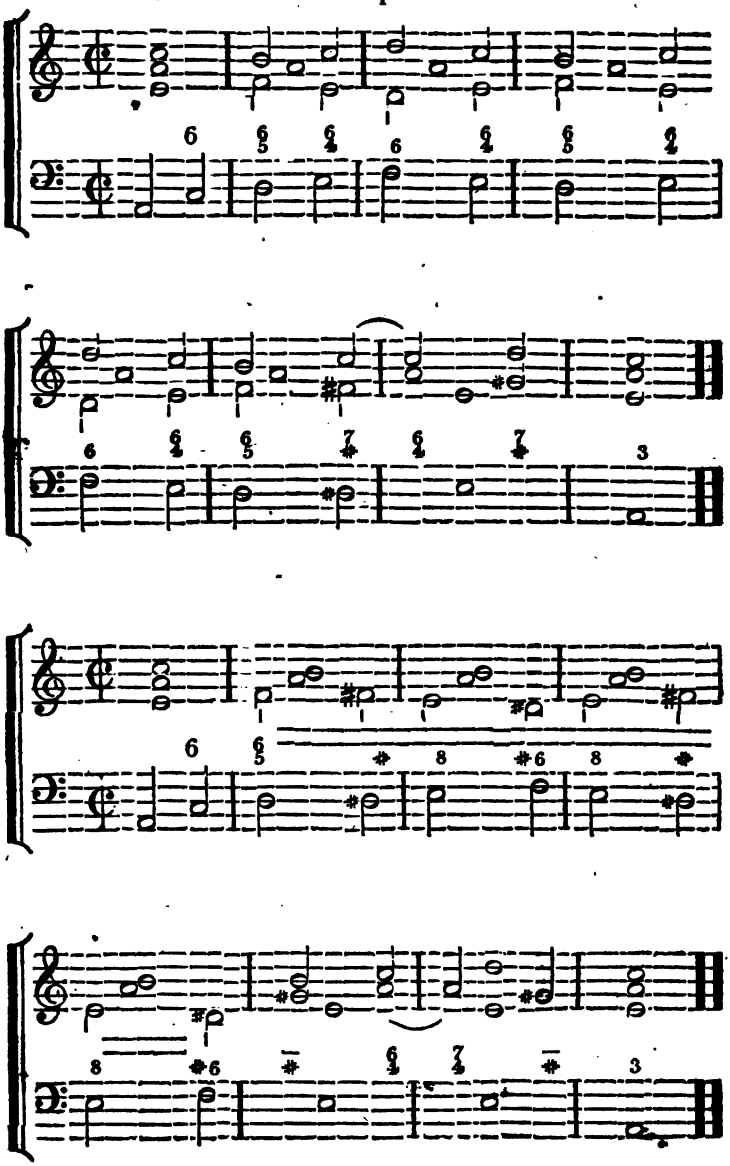
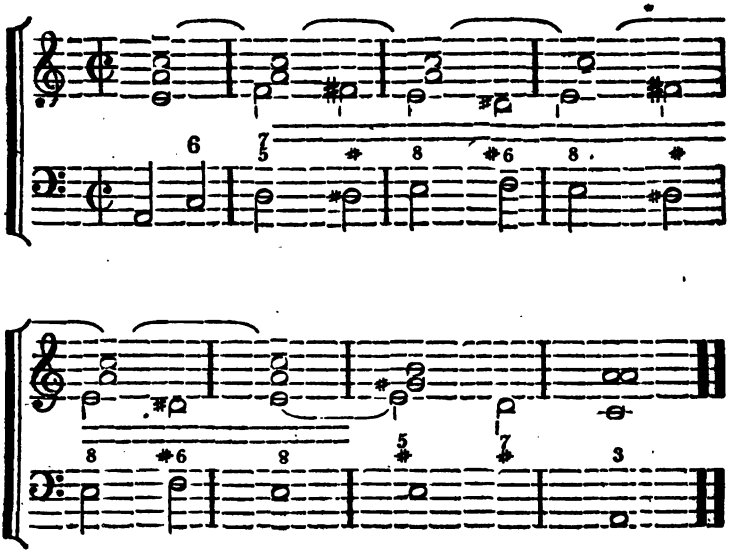
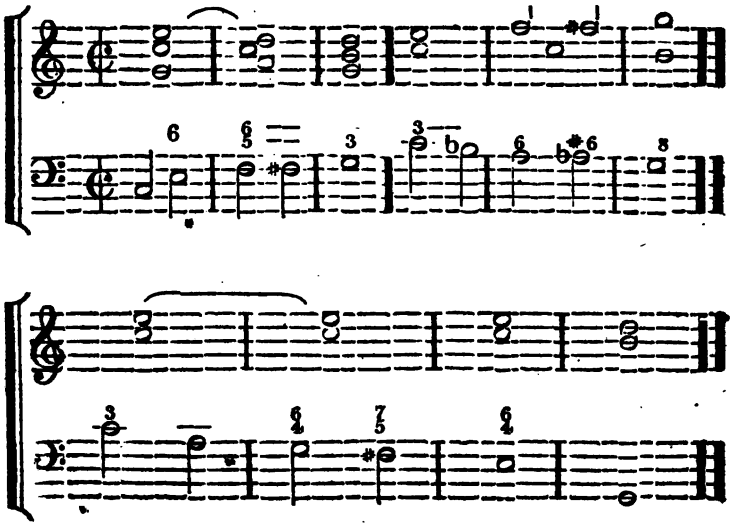
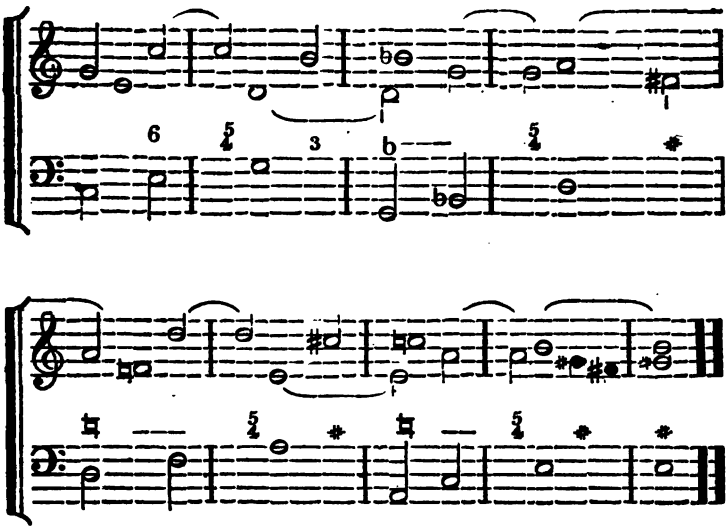
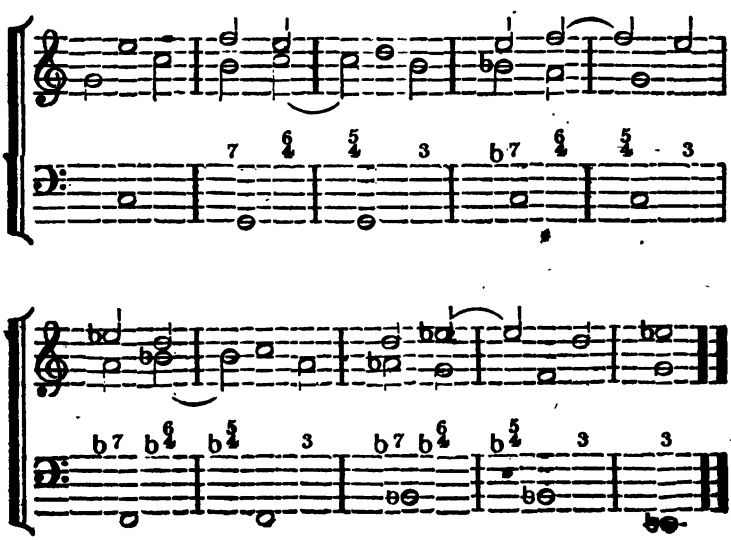
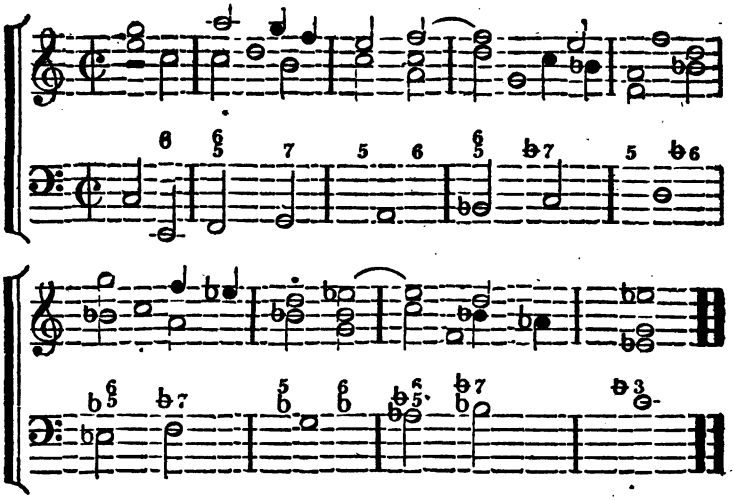
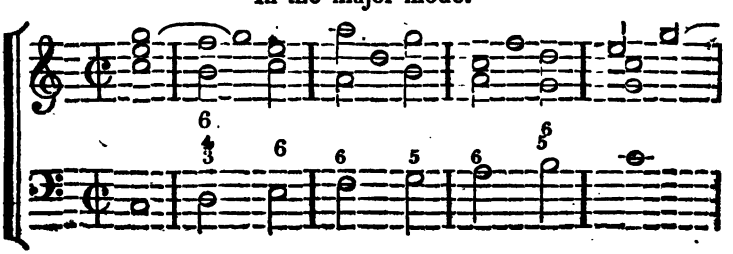
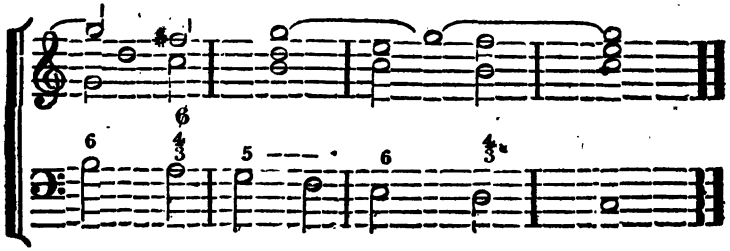

N. B. These examples may be applied to the minor mode.

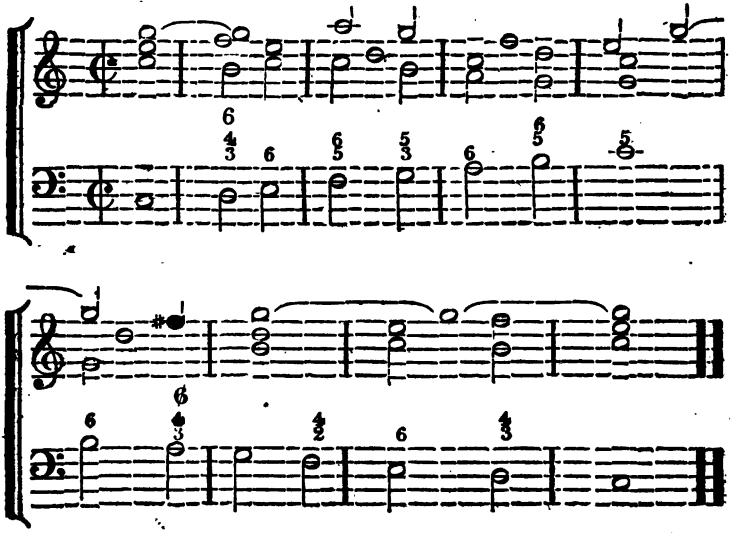
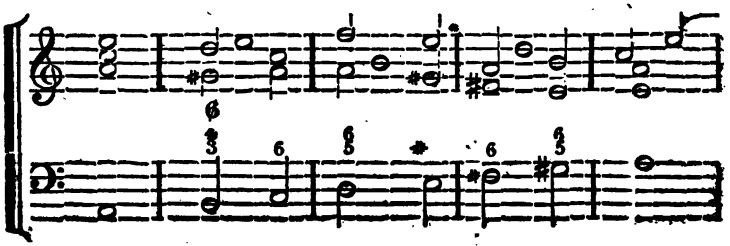
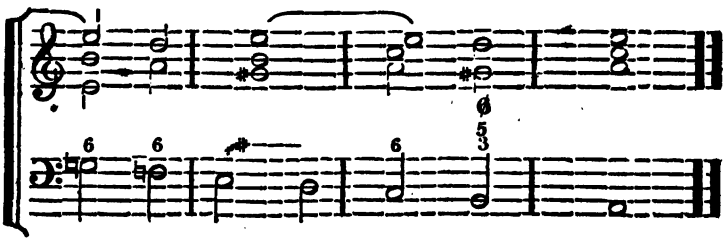
Some other examples in minor.

Progressions of the base to bring a close on the dominant, (an imperfect cadence.)

A series of cadences on the dominant.

A succession of evitated cadences.

A succession of broken cadences.

CHAPTER IX.

ON THE DIFFERENT PROGRESSIONS OF THE BASE THROUGH THE DIATONIC SCALE, WITH THE NATURAL HARMONY, AND THE DISSONANT PROGRESSIONS MOSTLY USED.

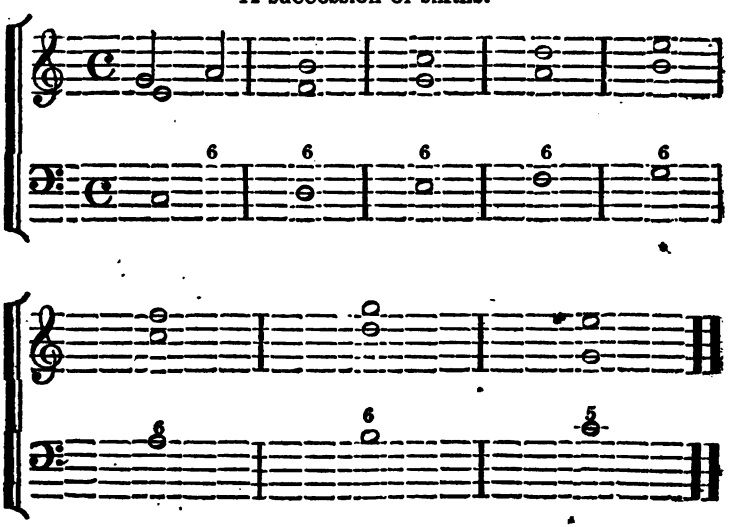
1st. The scale accompanied with natural harmony. (Rule of the Octave).

In the major mode.

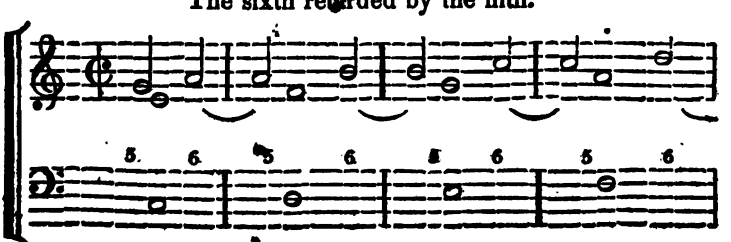
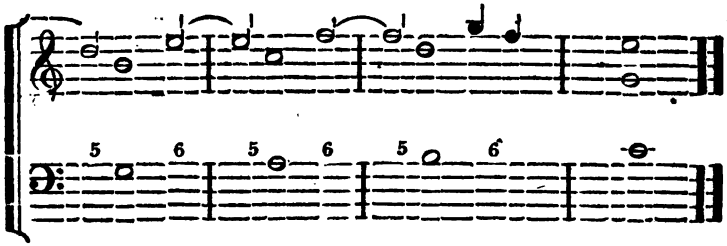


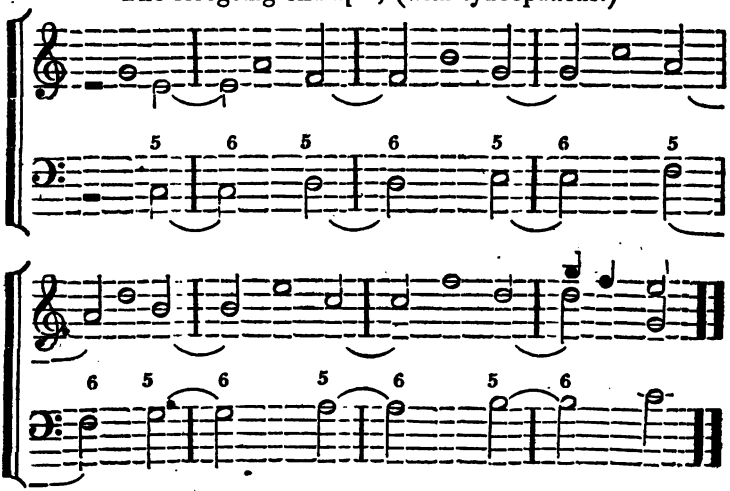
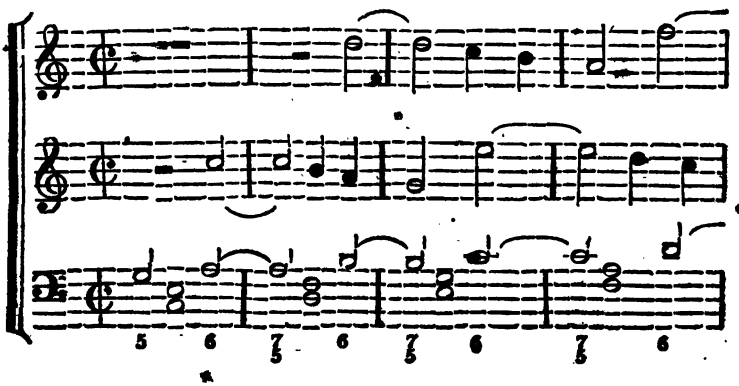
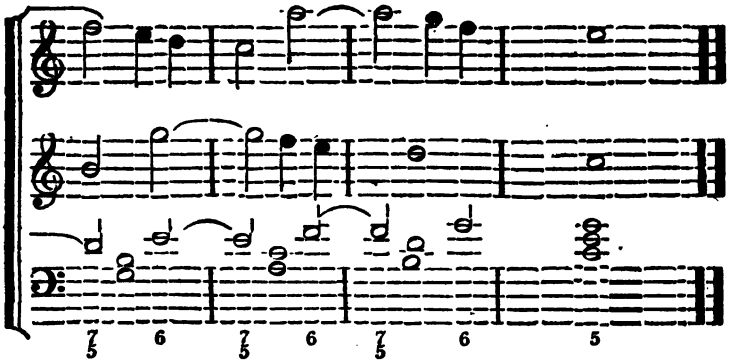
The same scale with the discord of the 5th and 6th on the fourth degree ascending.

In the minor mode.

VARIATION I. NATURAL HARMONY.

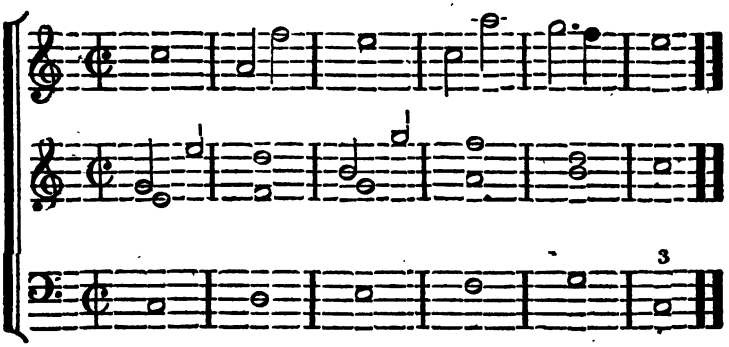
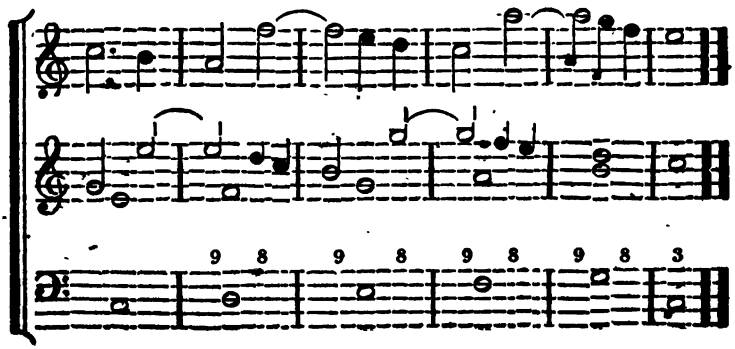
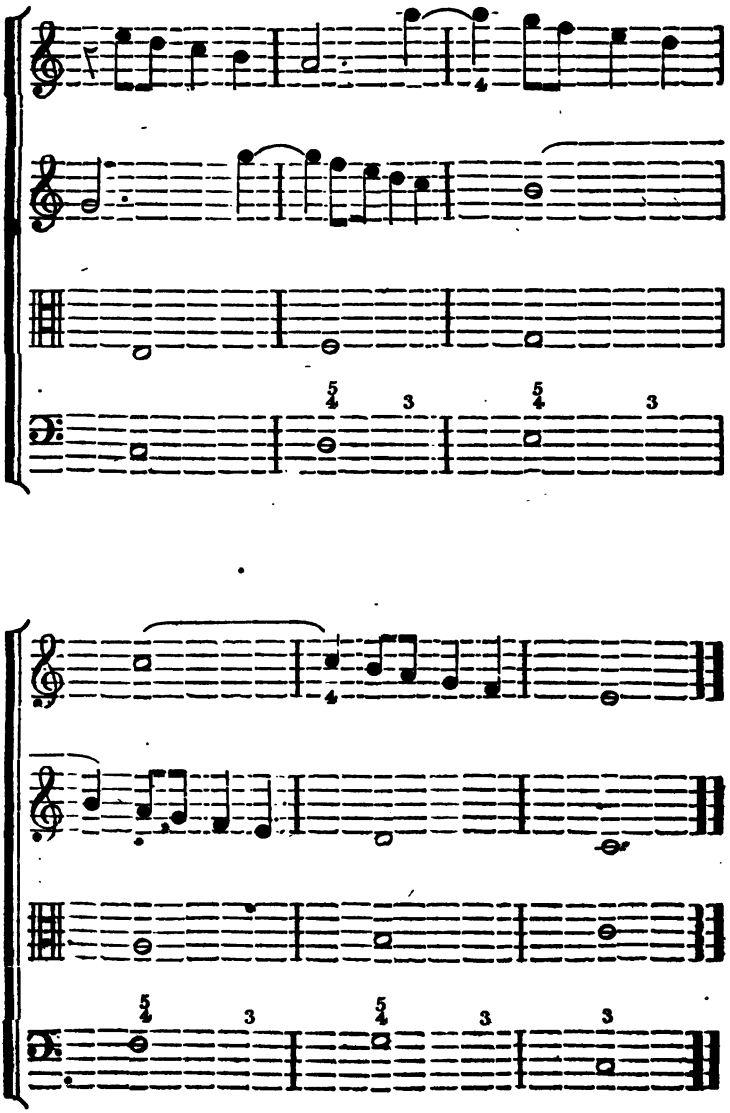
A succession of sixths.

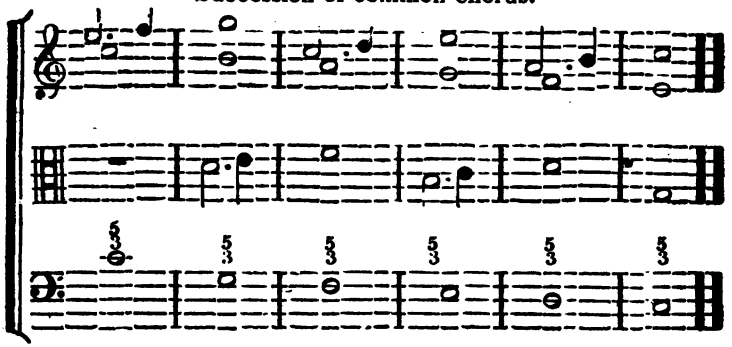
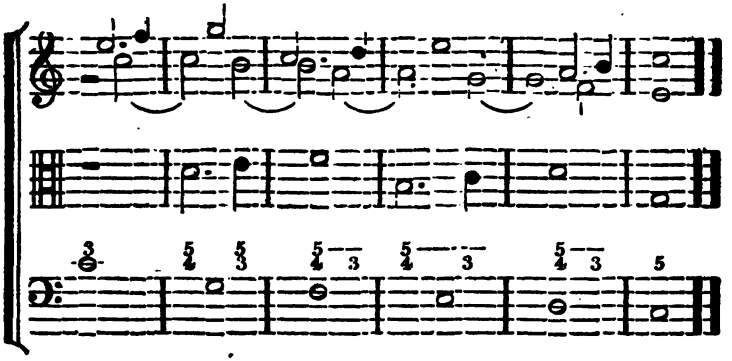


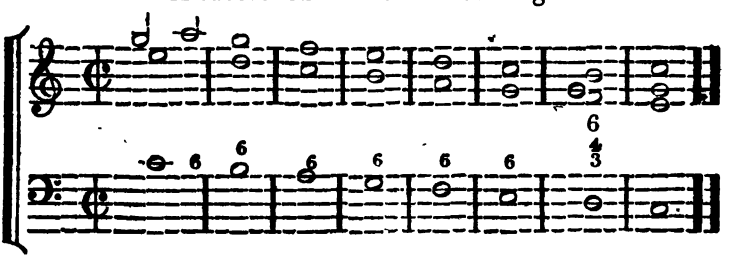
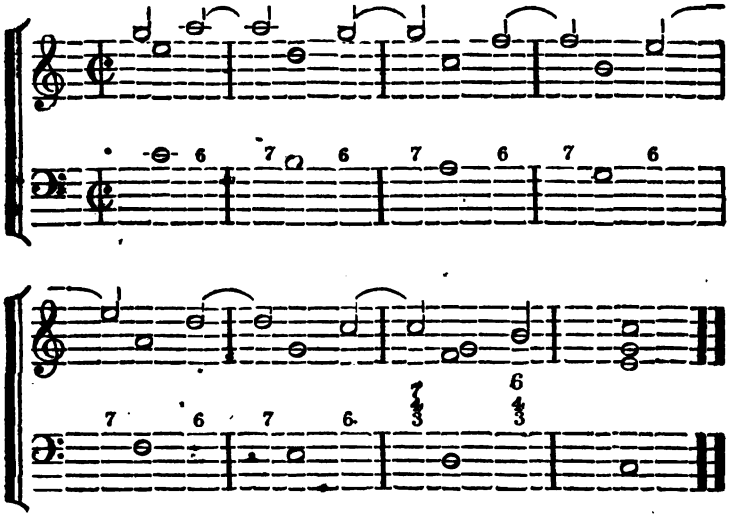
The sixth retarded by the fifth.



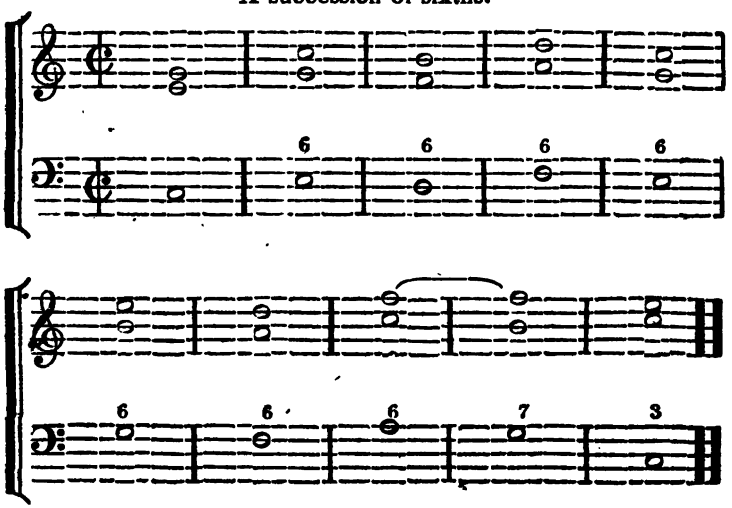
The foregoing example, (with syncopations.)

The sixth retarded by the fifth and seventh, which gives a succession of sevenths.

II. NATURAL HARMONY.

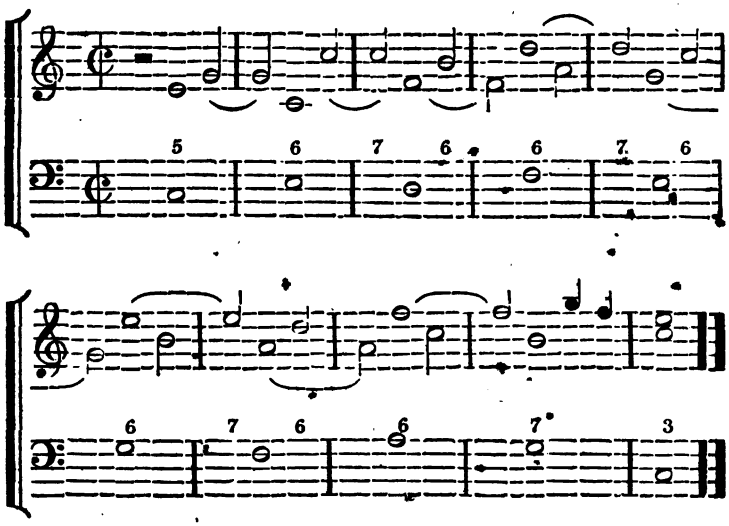
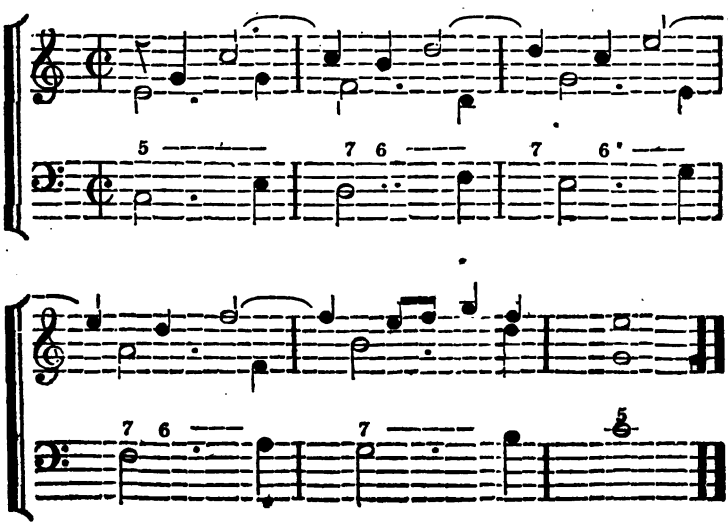
A succession of common chords.

1st. The 8ths retarded by the 9th. Succession of 9ths.

2d. The 8ve of the 3d retarded, by which a succession of elevenths is produced.

III. NATURAL HARMONY.

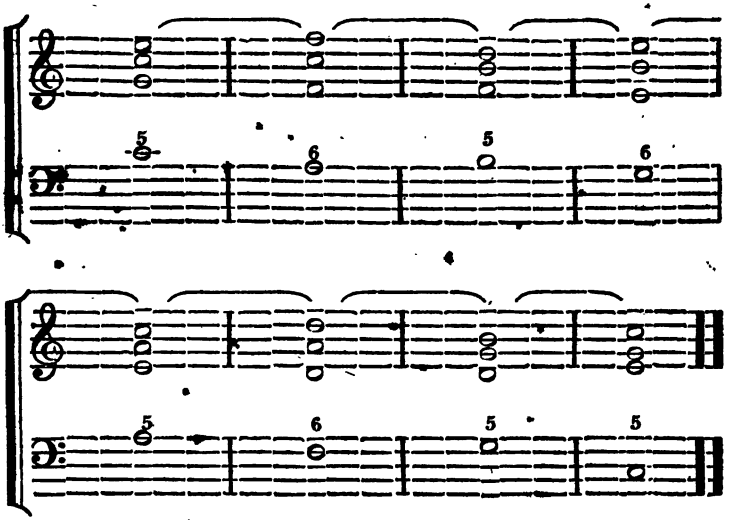
Succession of common chords.

The 3ds retarded, (producing a succession of 4ths and 5ths.

IV. NATURAL HARMONY.

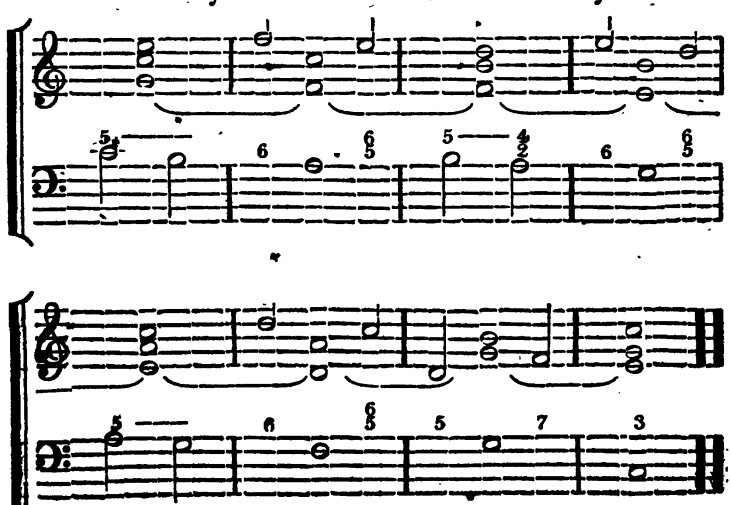
A succession of sixths descending.

The sixths retarded by sevenths, by which a succession of sevenths is produced.

V. NATURAL HARMONY.

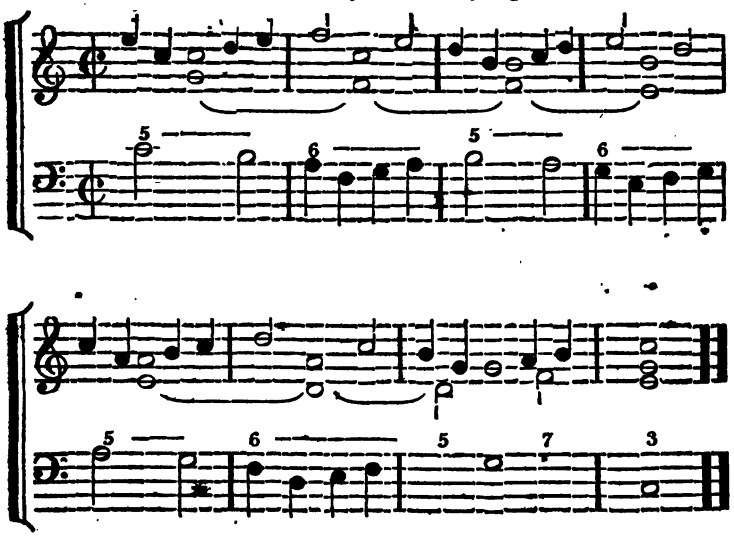
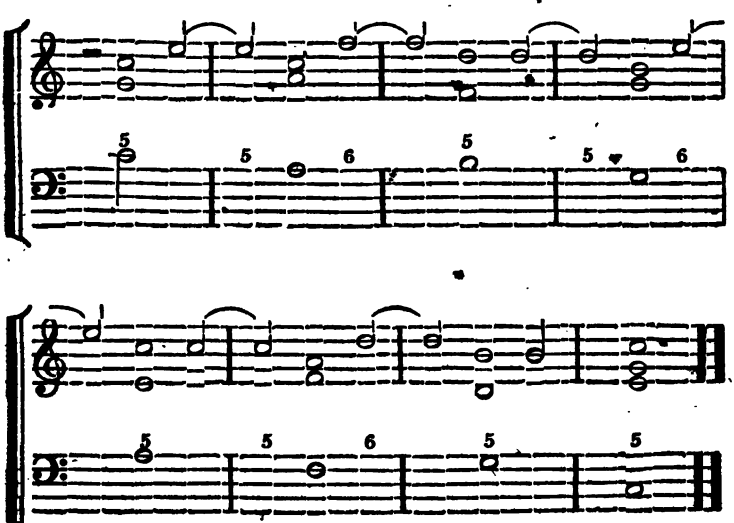
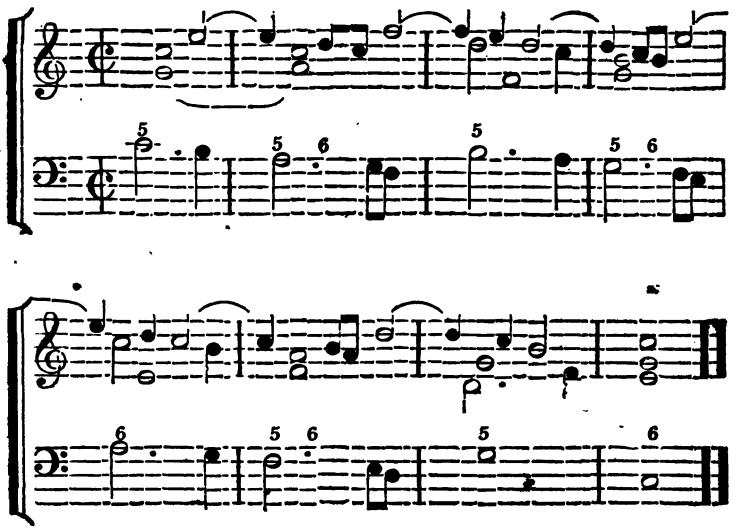
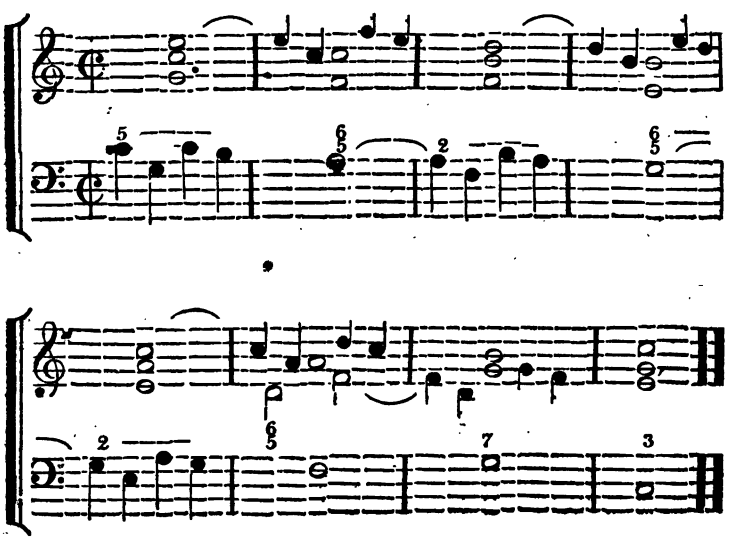
A succession of sixths.

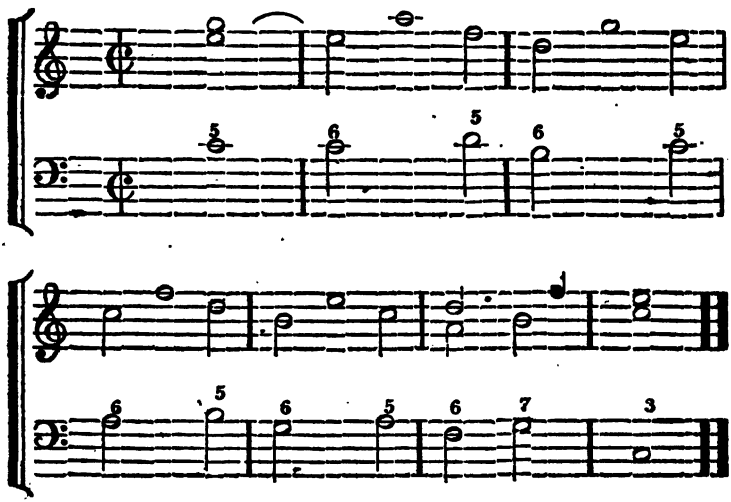
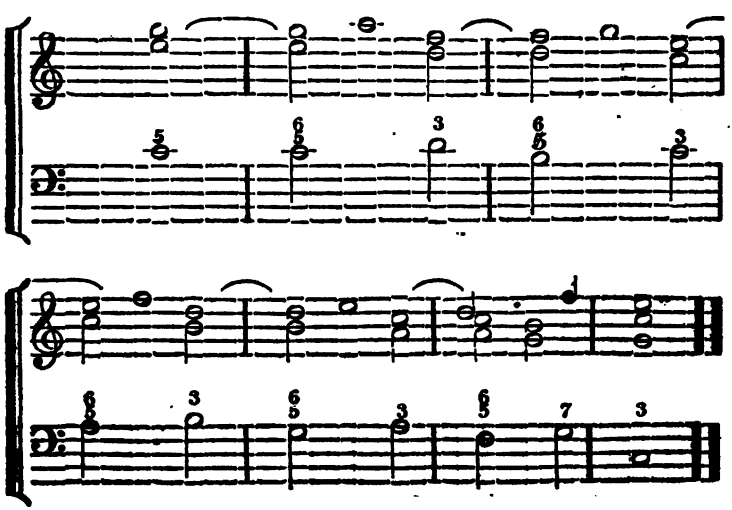


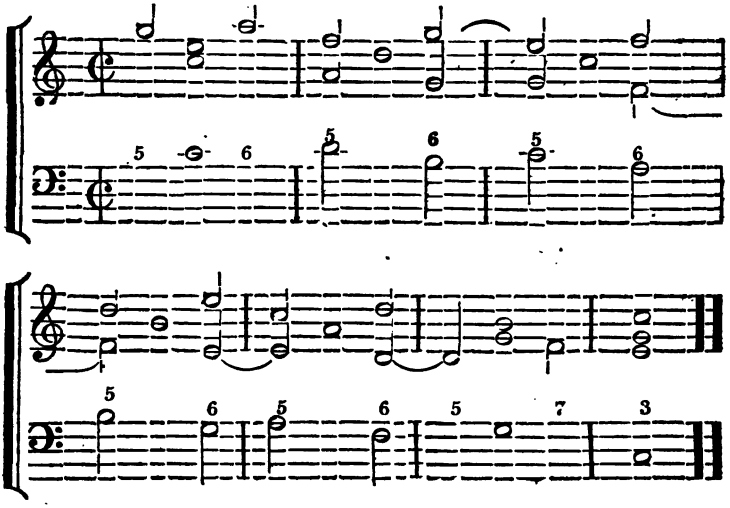
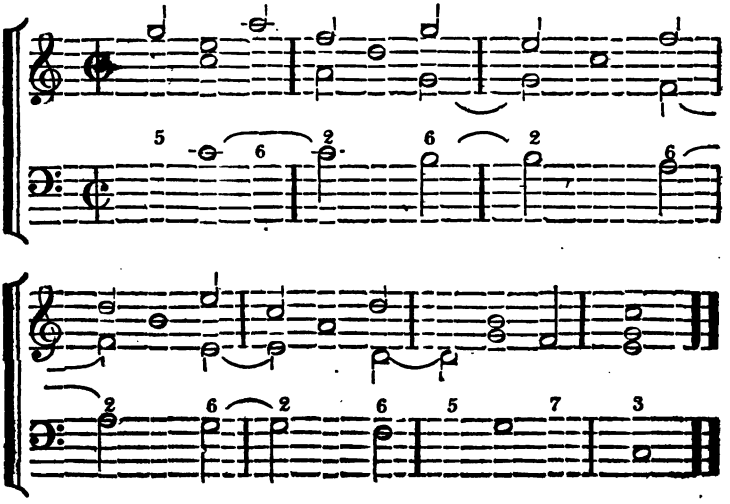
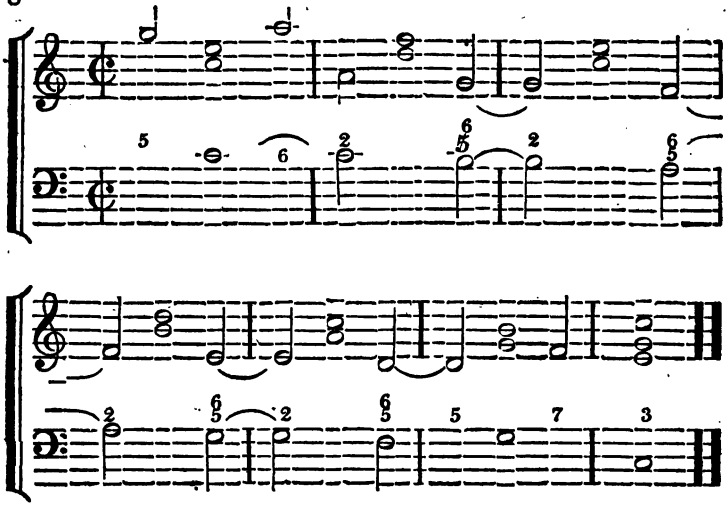
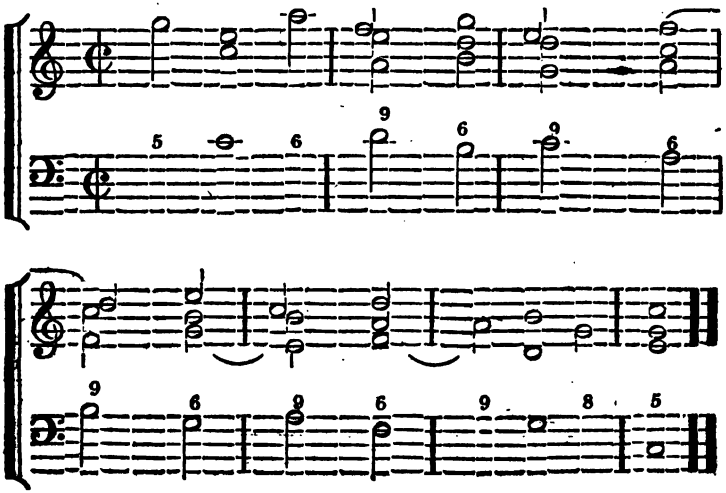
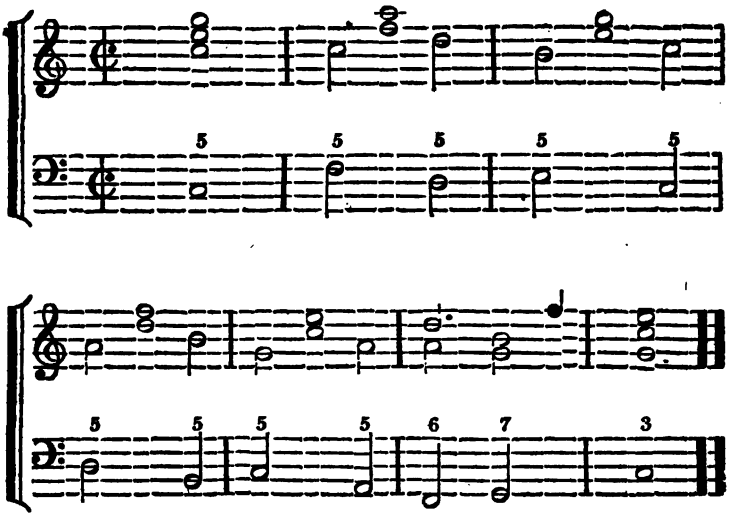
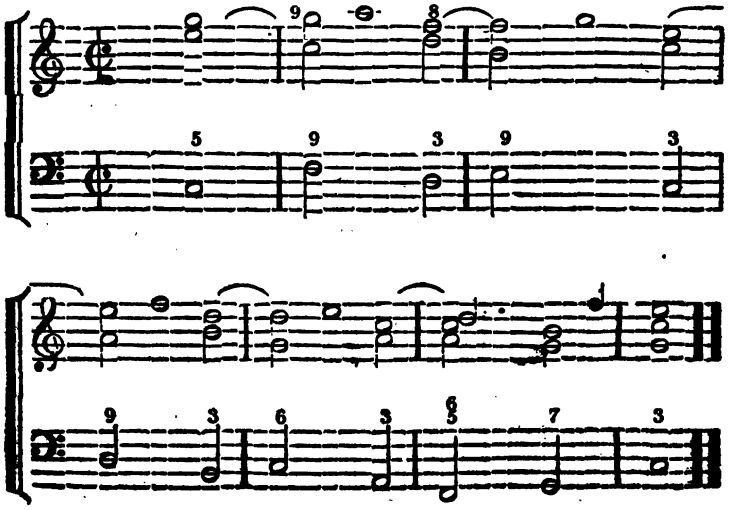
The sixths retarded by sevenths, when the base descends a second.

The same harmony more close.

VI. NATURAL HARMONY.

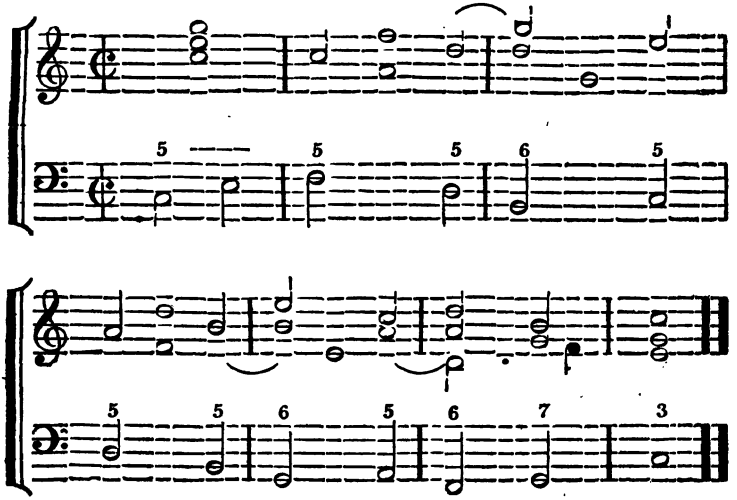
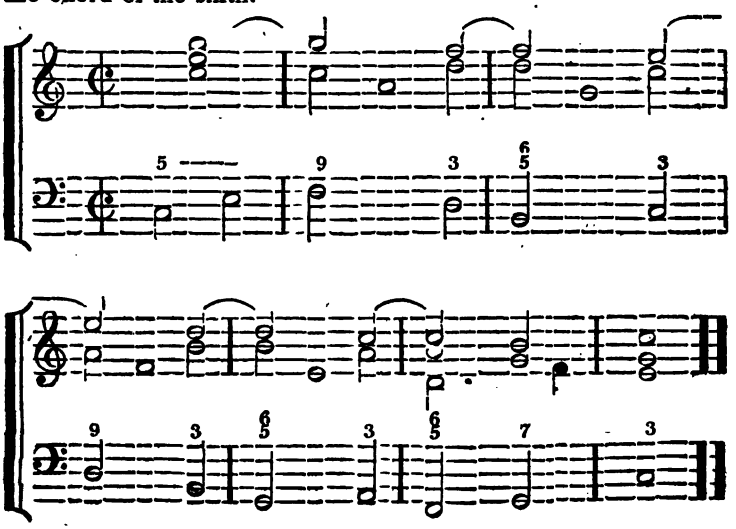
Succession of common chords and sixths.

The same harmony with transient notes in the melody and base.



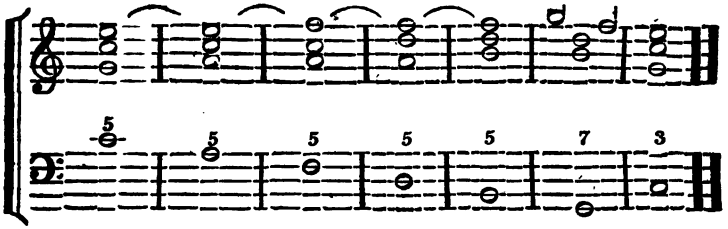
The same harmony differently figured.

The sixth retarded by fifths.

The same harmony with transient notes.

Succession of great sixths and seconds.

VII. NATURAL HARMONY.

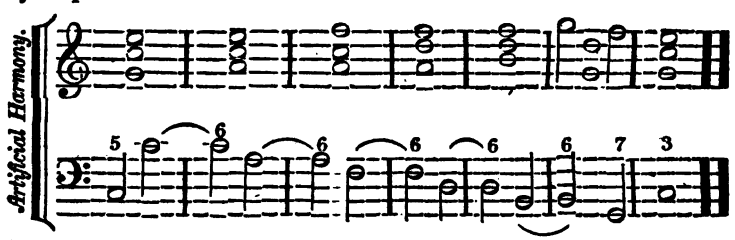
Succession of sixths and common chords.

The discord of the fifth in the chord of sixth, producing a succession of sixths and fifths.

VIII. NATURAL HARMONY.

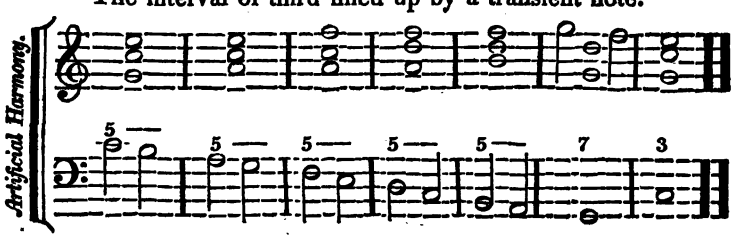
Succession of common chords and sixths.

1st. The discord of second under the common chord producing a series of seconds.

2d. Discord of second under the common chord, and of fifth in the chord of sixth, producing a succession of seconds and great sixths.

3d. The eighth of the common chord retarded, which gives a succession of ninths.

IX. NATURAL HARMONY.

1st. A succession of ninths produced by the retardation of the eighth.

X. NATURAL HARMONY.

Series of common chords and sixths.

1st. Discord of ninth on the common chord, and of fifth in the chord of the sixth.

XI. NATURAL HARMONY.

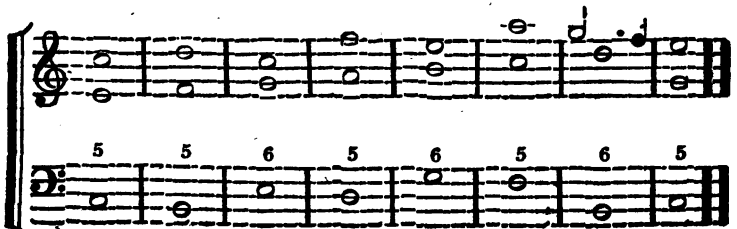
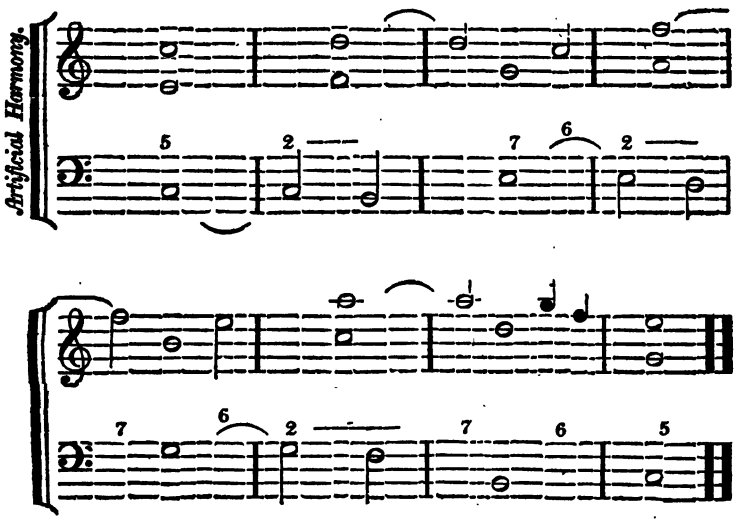
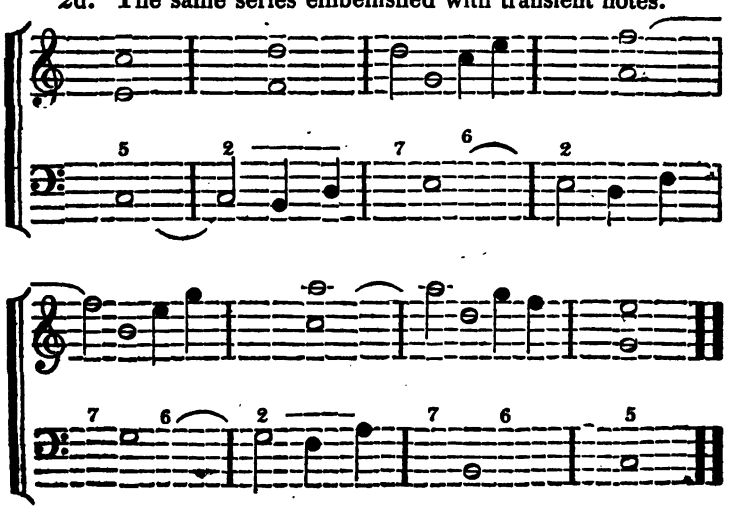
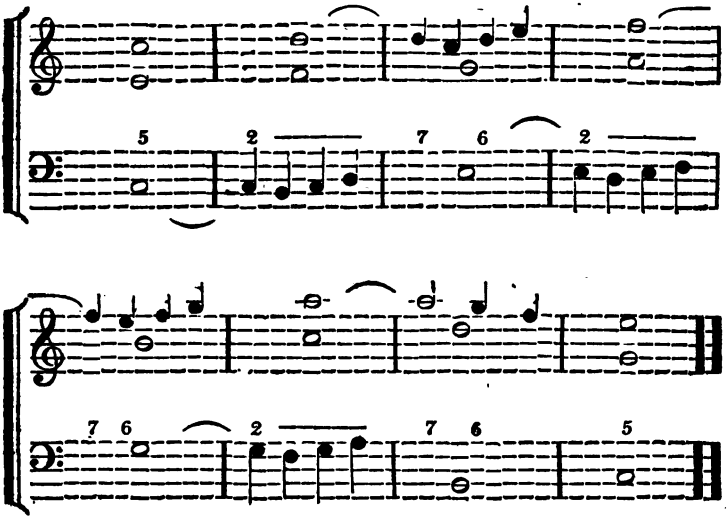
Series of common chords.

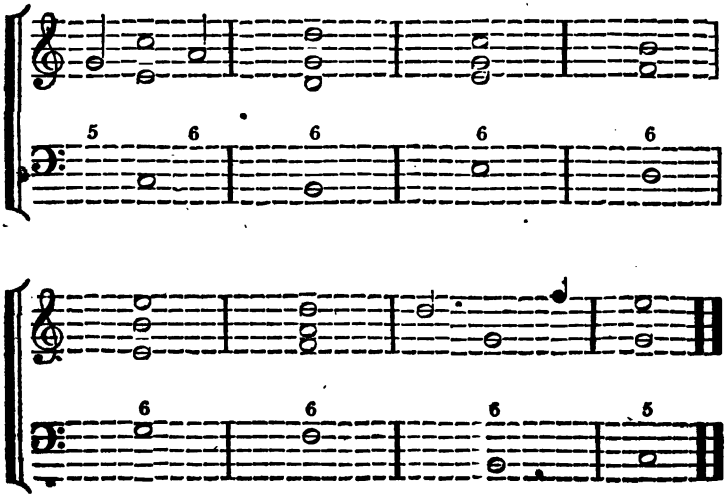
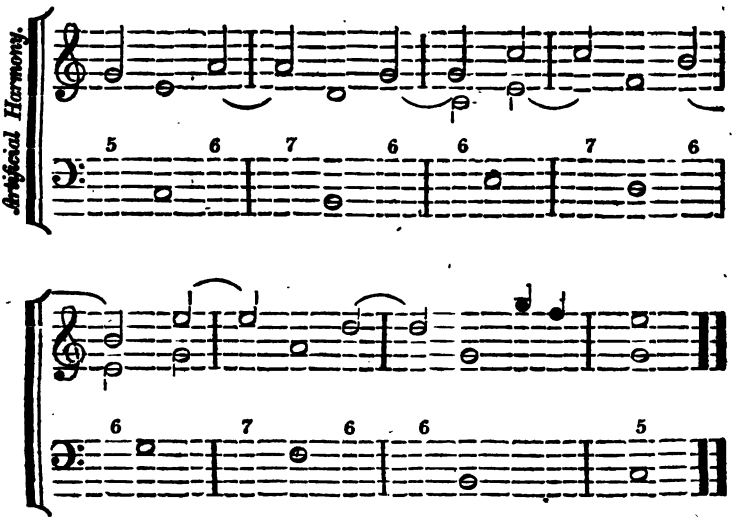
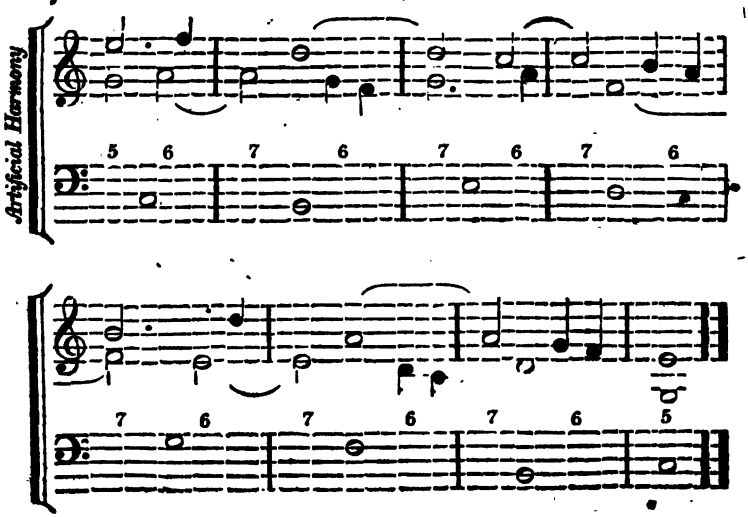


1st. Retardations in the base, giving a series of consonant syncopations.

The interval of third filled up by a transient note.

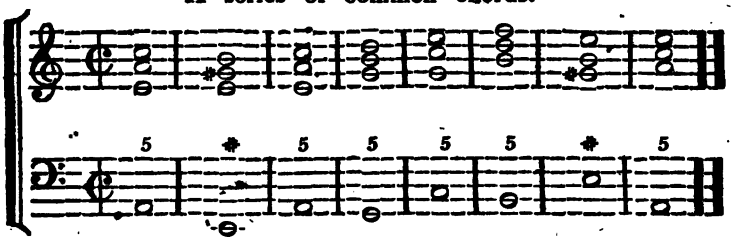


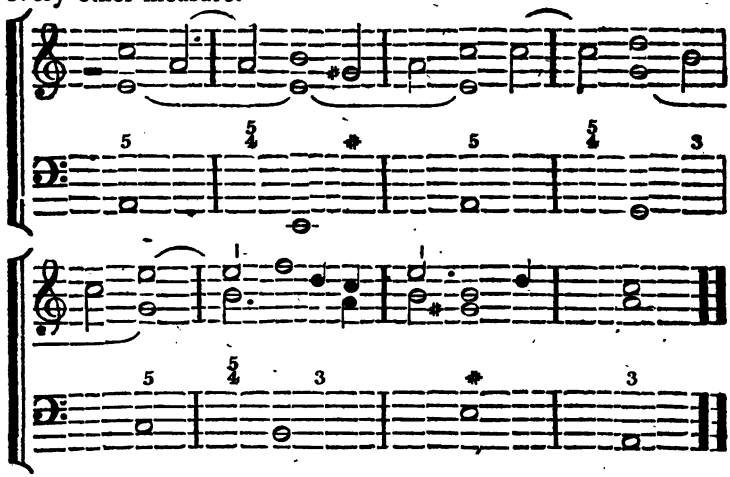
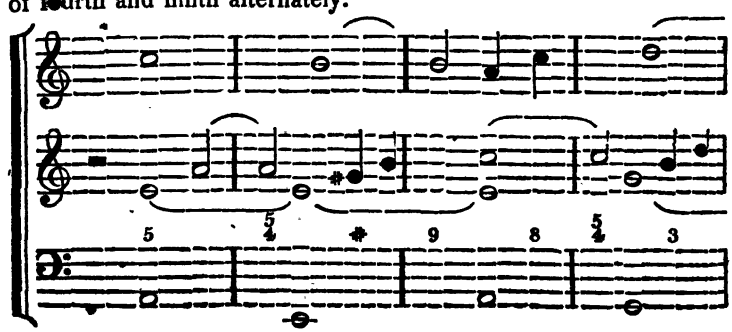
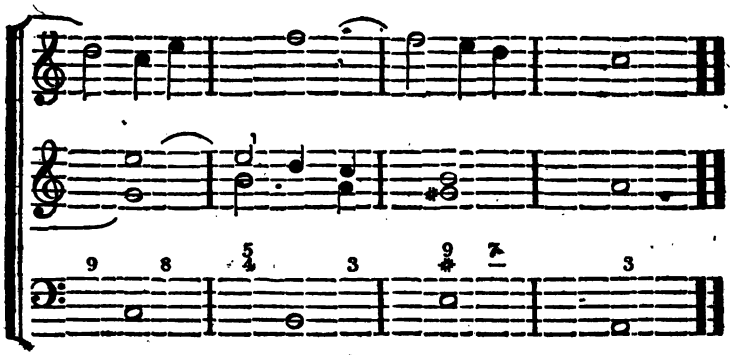
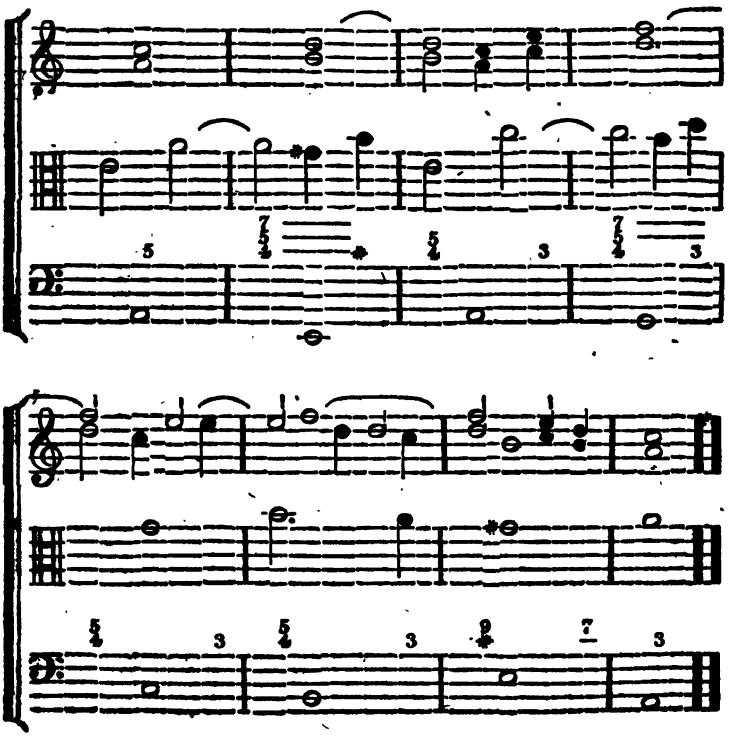
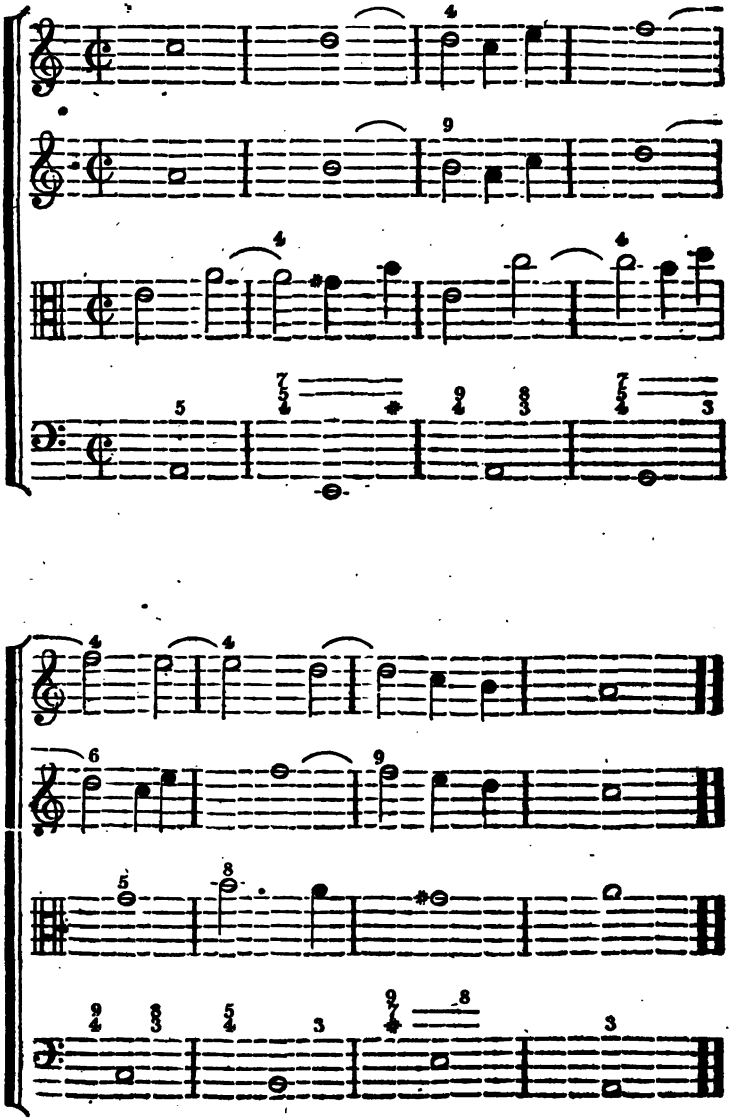
XII. NATURAL HARMONY.

Series of common chords and sixths.

1st. Series of seconds and sevenths produced by the retardation of the common chord in the base, and of the sixth in the upper part.

2d. The same series embellished with transient notes.

Do. with the interval of the fourth filled up by transient notes.

XIII. NATURAL HARMONY.

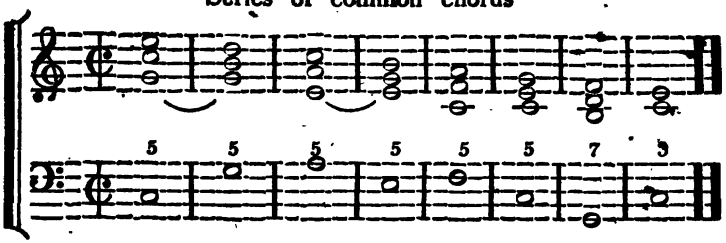
A series of sixths.

1st. Retardation of the sixth, giving a series of sevenths at every other measure.

2d. Retardation of the sixth, giving a sequence of sevenths at every measure.

XIV. NATURAD HARMONY.

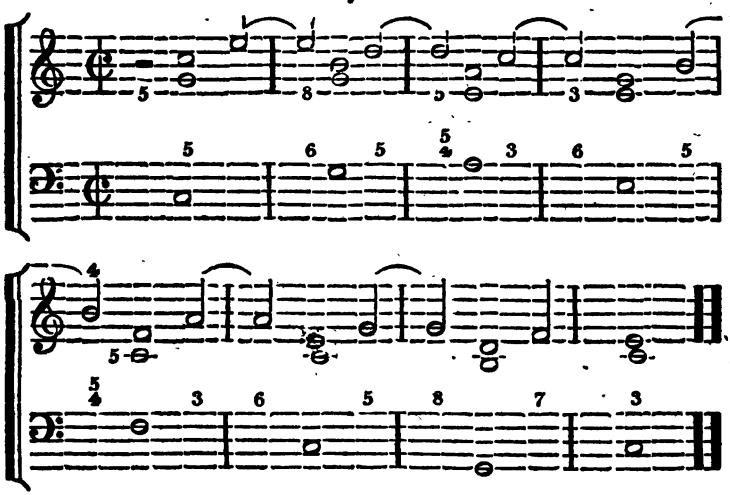
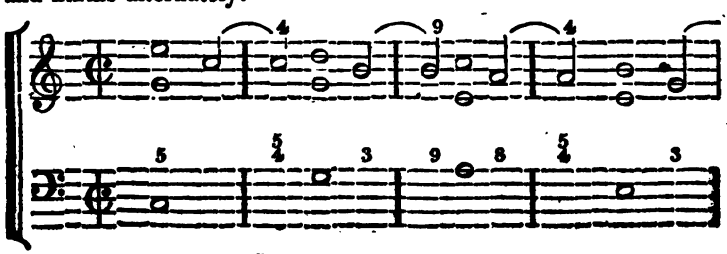
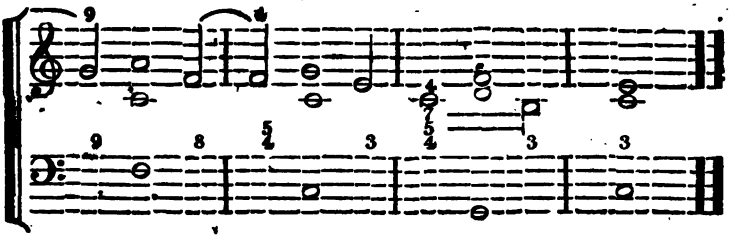
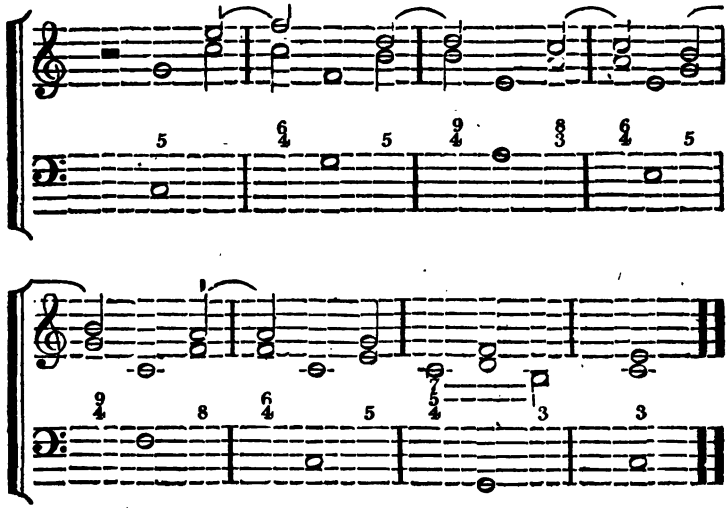
A series of common chords.



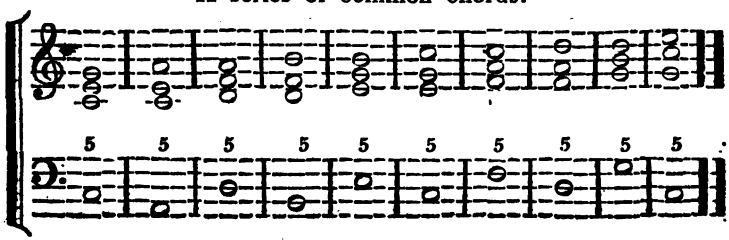
1st. Retardation of the third, giving a discord of the third at every other measure.

2d. Retardation of the third and eighth, producing discords of fourth and ninth alternately.

3d. Retardation of the third in the dominant seventh and in the common chord.

4th. Retardation of the third in the dominant seventh, and of the third and eighth in the common chord.

XV. NATURAL HARMONY.

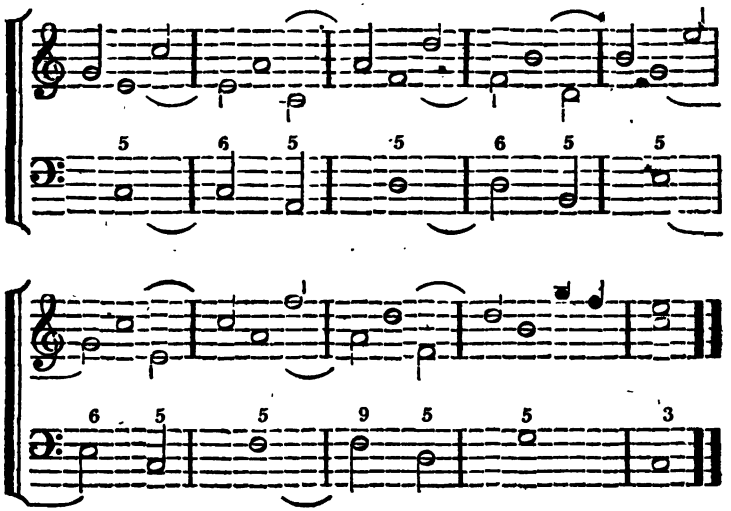
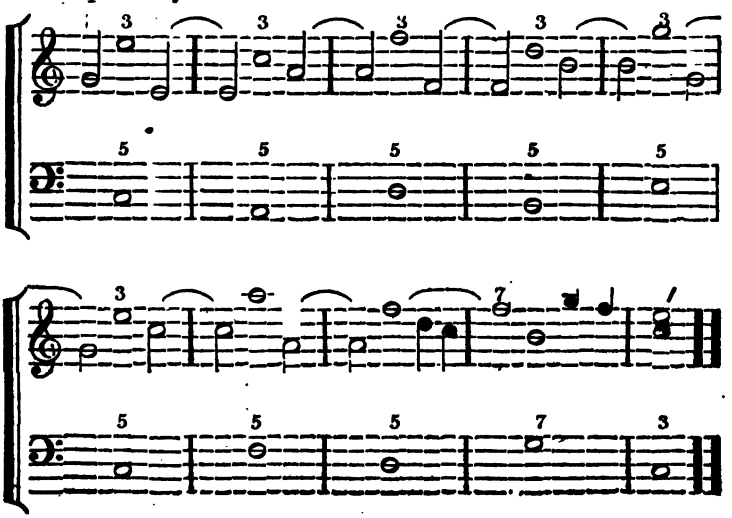
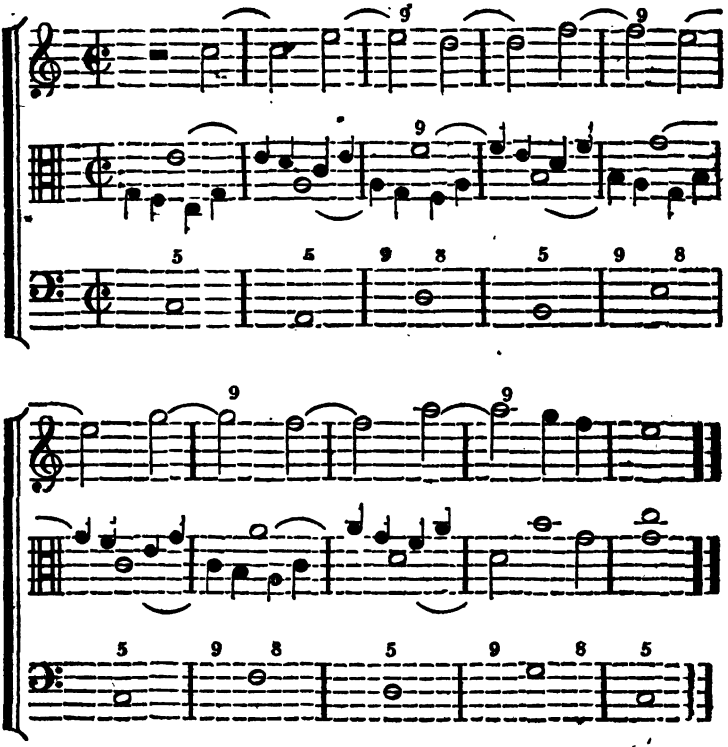
Series of common chords

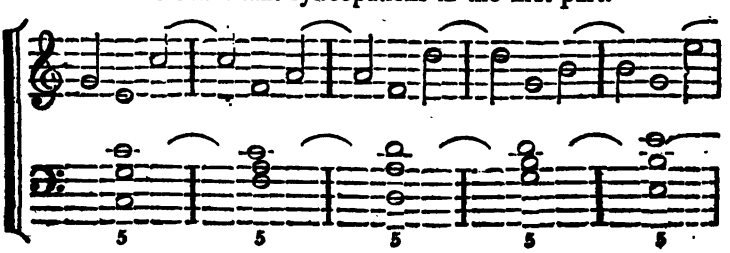
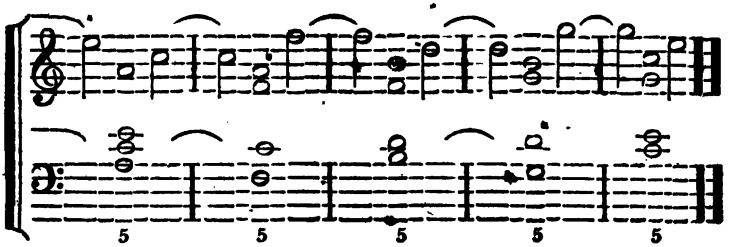
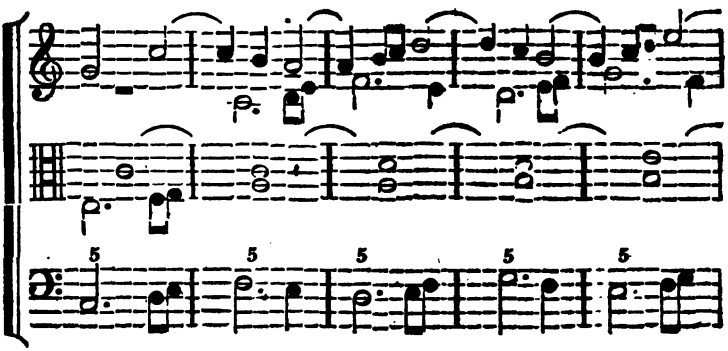
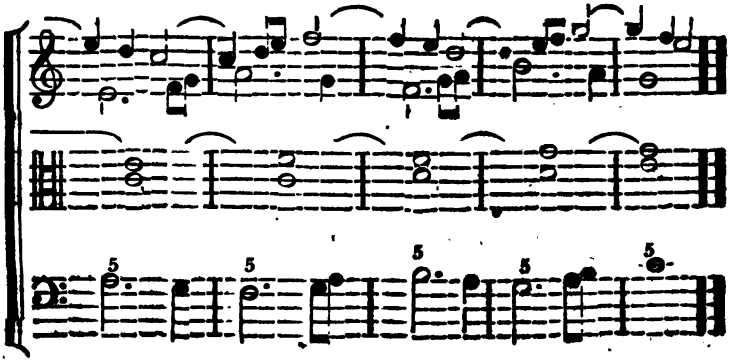


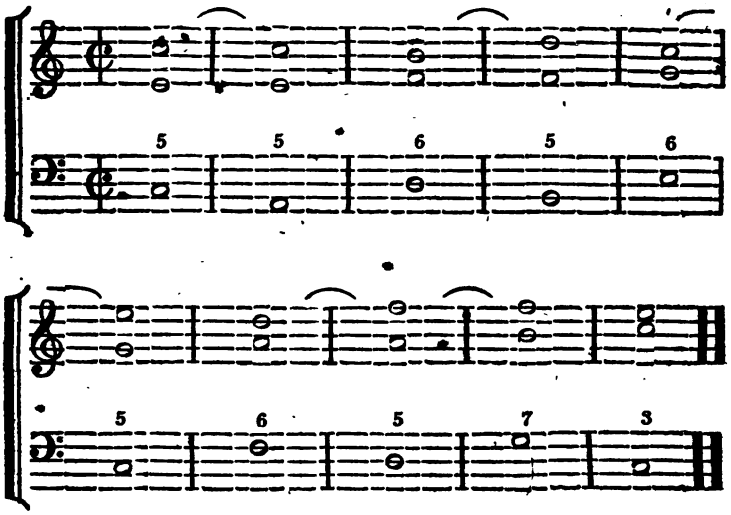
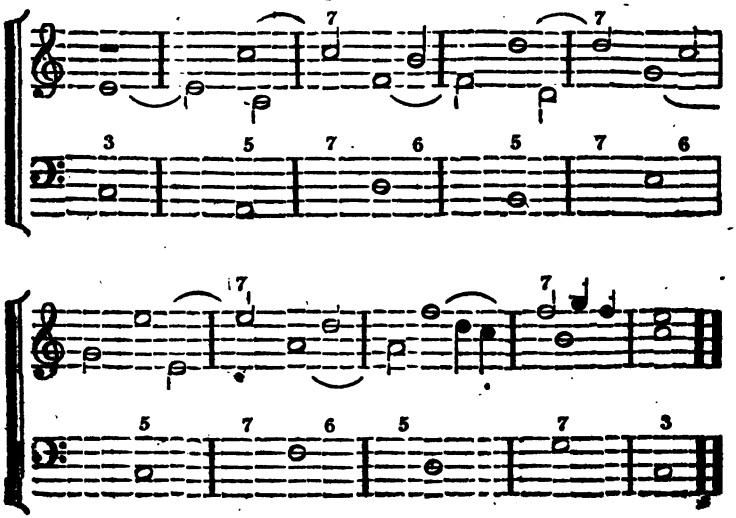
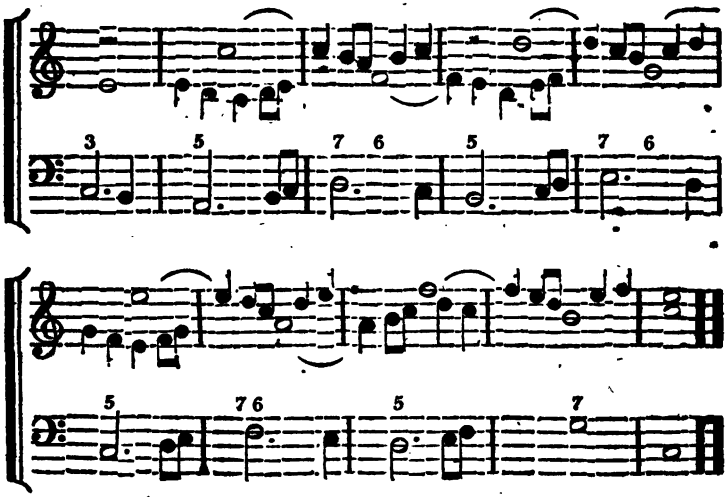
1st. Retardation of the first part, making a series of sixths and fifths and fourths alternately.

2d. Retardation of the second part, making a series of fourths and ninths alternately.

3d. Retardation of two parts, making alternately a series of 6ths, 4ths, and 9ths, 4ths, or 11ths.

XVI. NATURAL HARMONY.

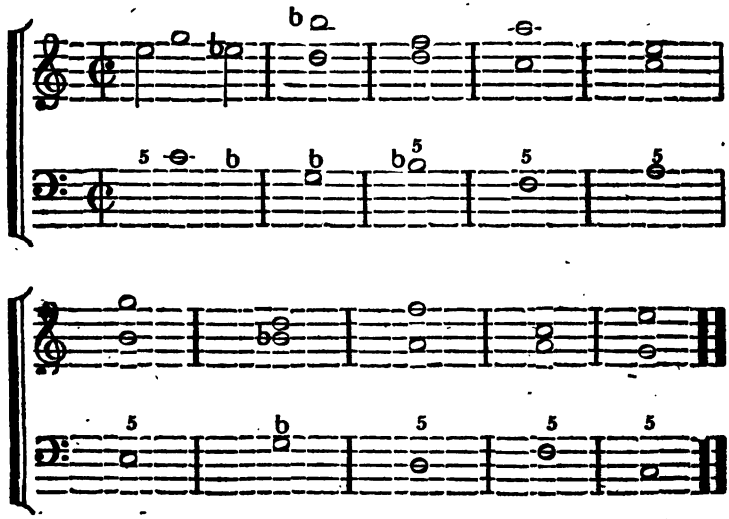
A series of common chords.

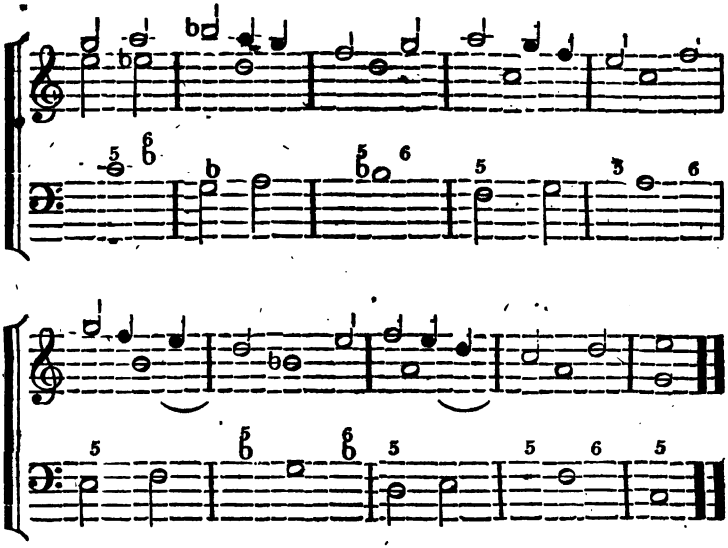


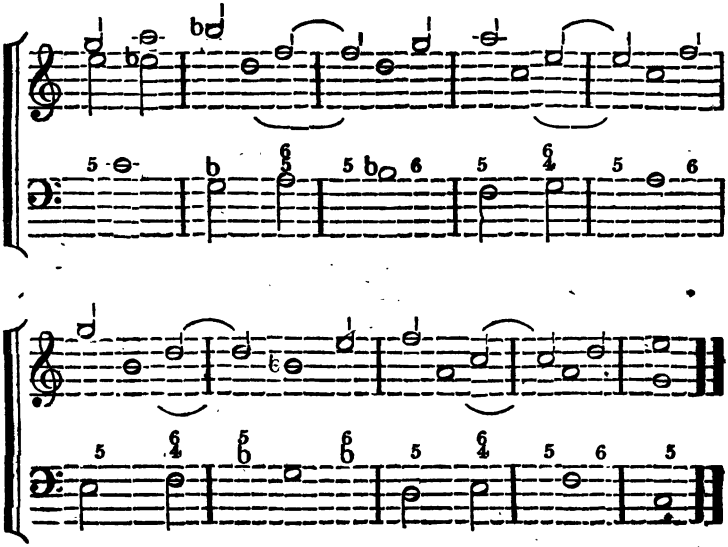
1st. The same series with consonant syncopations in all the parts.

2d. The same series with consonant syncopations in the second part only.

3d. The same series as the foregoing, with the eighth retarded in the first treble, and the two other parts embellished with transient notes.

XVII. NATURAL HARMONY.

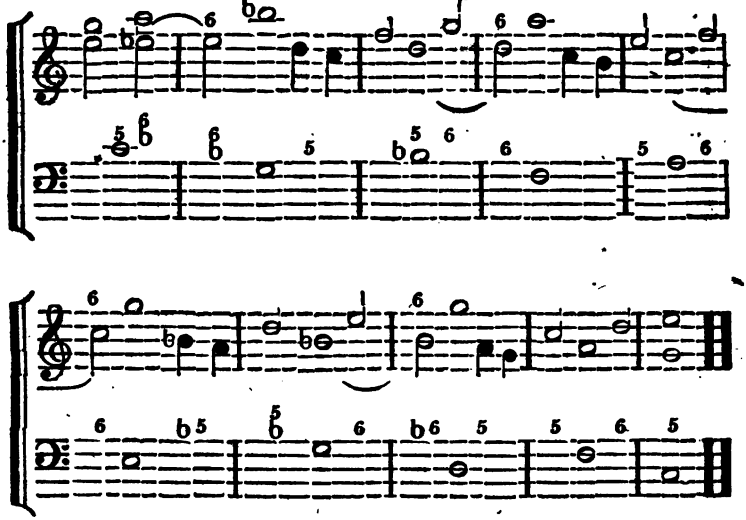
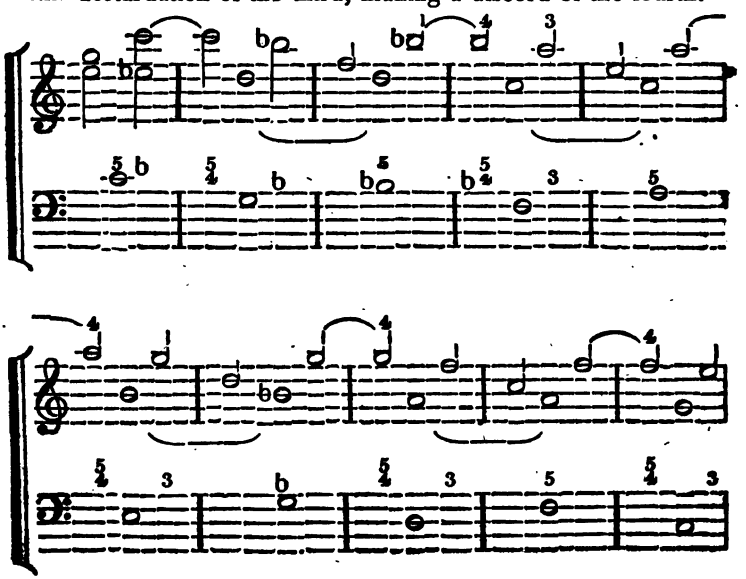
With consonant syncopations in the first part.

1st. The intervals of fourth and of third filled up by transient notes.

XVIII. NATURAL HARMONY.

A series of common chords and sixths.

1st. A series of sevenths produced by retarding the sixth.

2d. The skips of third and fourth filled up by transient notes.

XIX. NATURAL HARMONY.

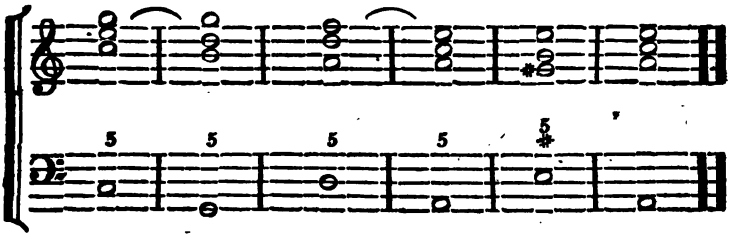
A series of common chords.*

* The key not determined.

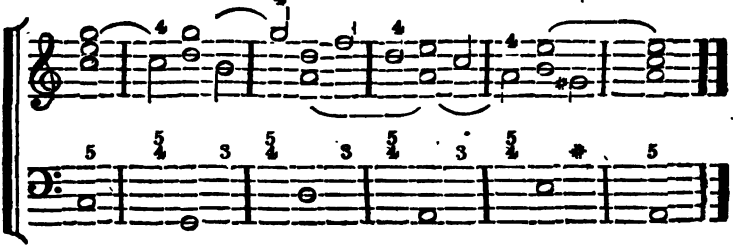
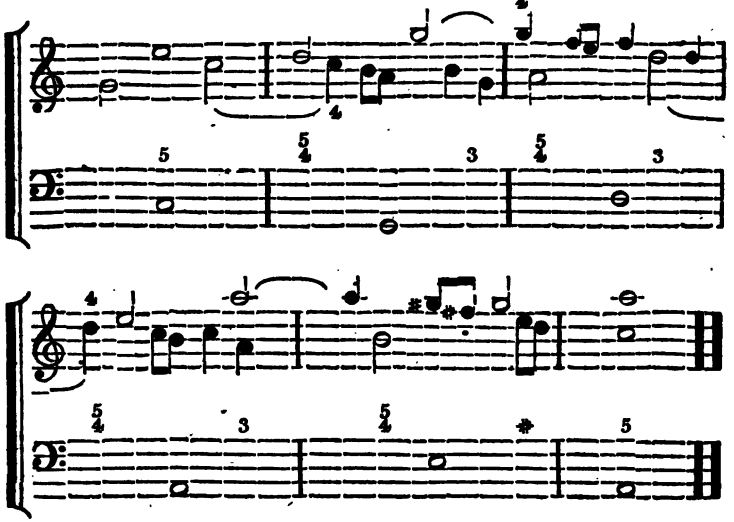
1st. The skips of third and fourth filled by transient notes.

2d. Alternate series of common chord, of 6ths and of $\frac{6}{4}$th.



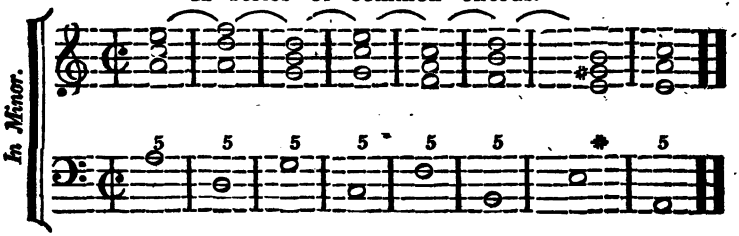
3d. Retardation of the fifth by the sixth.

4th. Retardation of the third, making a discord of the fourth.

XX. NATURAL HARMONY.

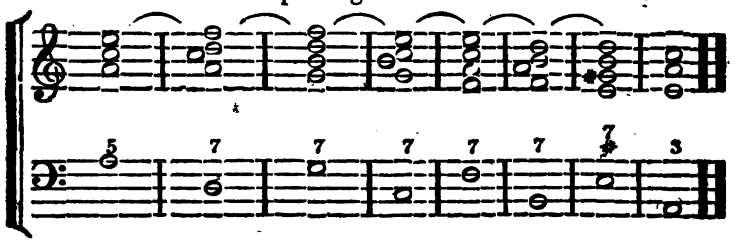
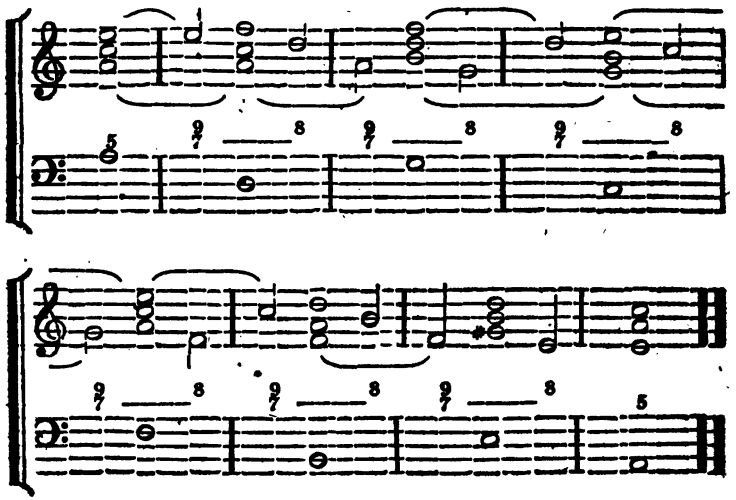
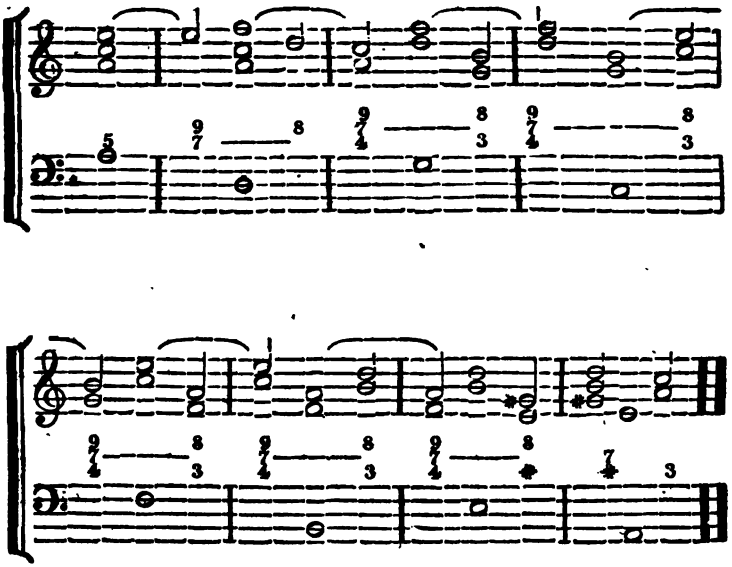
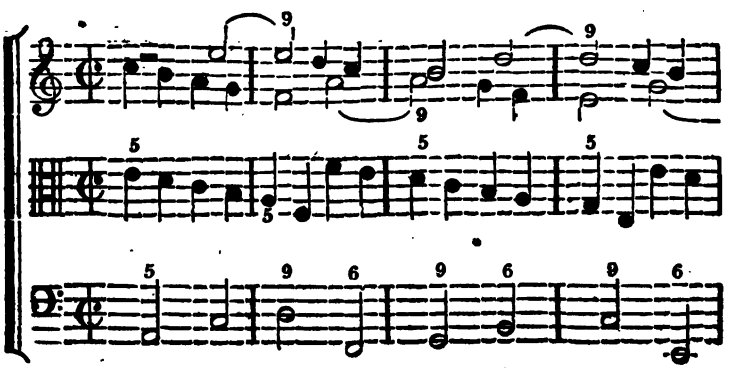
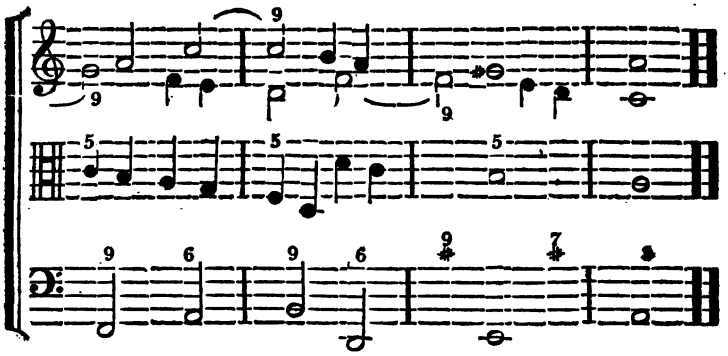
A series of common chords.



The 3d retarded producing a series of $\frac{5}{4}$.

2d. Transient notes introduced in the two upper parts.

XIX. NATURAL HARMONY.

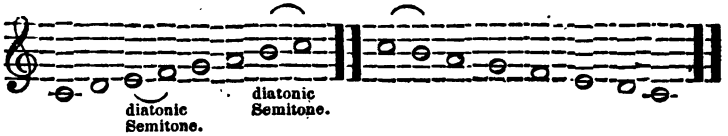
A series of common chords.



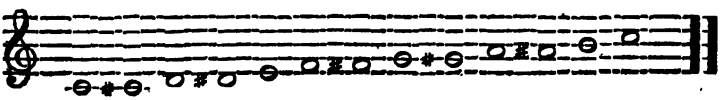
1st. The seventh prolonged on the common chord.

2d. Prolongation of seventh and retardation of 8va, producing a double discord of seventh and ninth.

3d. A triple discord of seventh, ninth, and fourth, produced by the seventh prolonged and the third and eighth retarded.

4th. A series of ninths produced by the retardation of the eighth.

CHAPTER X.

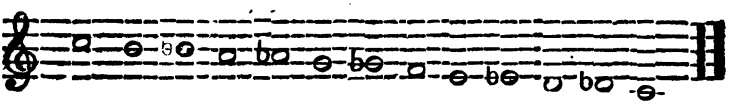
OF THE THREE GENERA.

1. There are in music three genera, viz. the Diatonic, the Chromatic, and the Enharmonic.

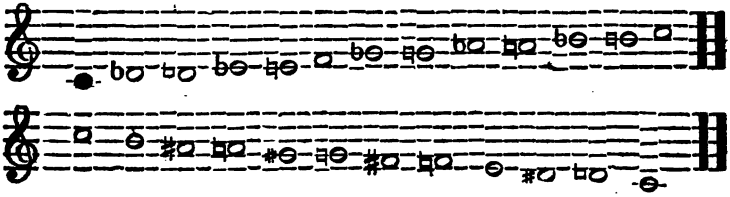
The diatonic proceeds by tones and major semitones, (semitones without any alteration by an accidental), thus the two semitones in the natural scale are diatonic, and the gamut either ascending or descending is called the diatonic scale.

2. The chromatic proceeds by a series of semitones alternately major and minor, and a gamut ascending or descending by a series of semitones, is called a chromatic scale.

According to the most natural way the chromatic scale ascends by sharps and descends by flats.

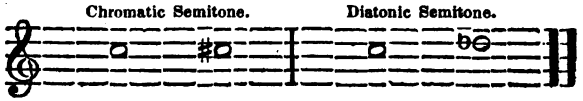


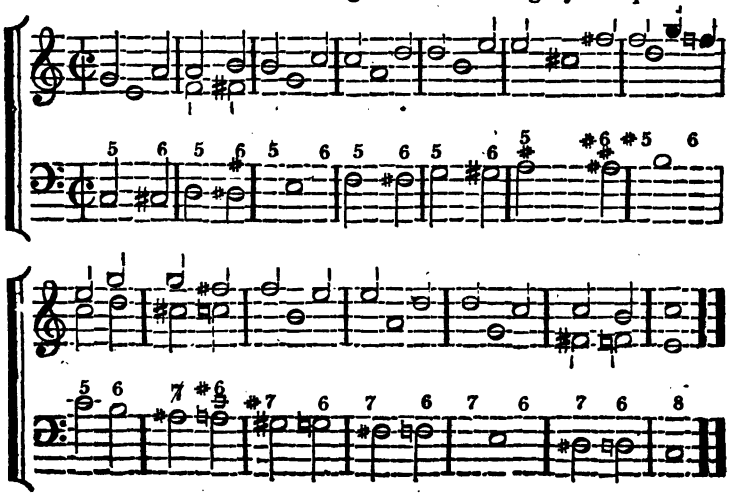
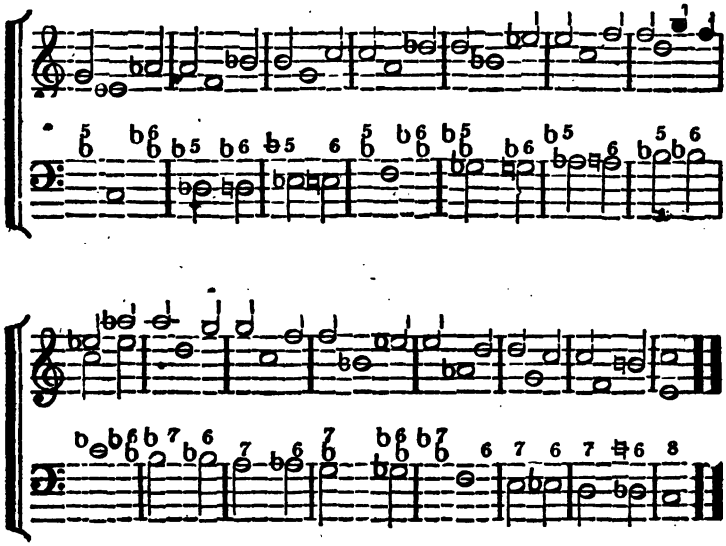
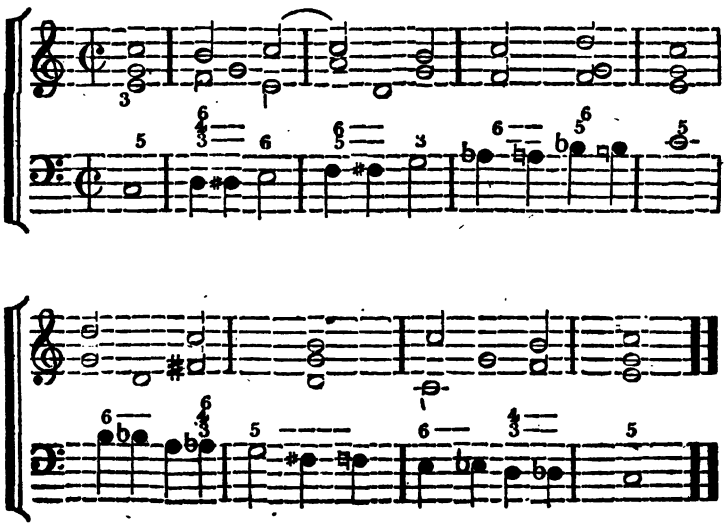
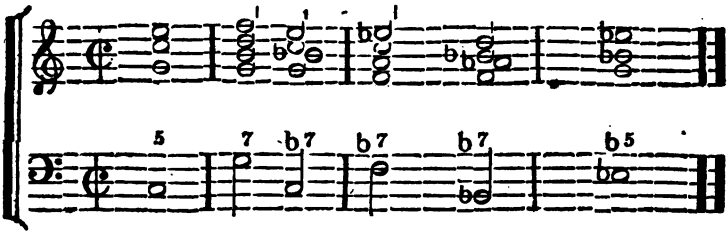


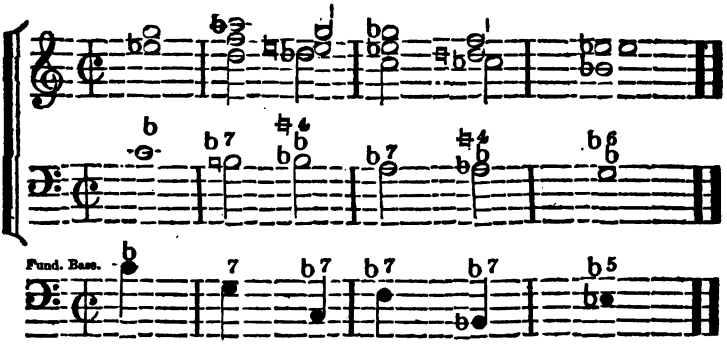
The chromatic scale ascending by flats and descending by sharps, may be used.



N. B. Although a series of semitones is called chromatic, the chromatic semitone strictly speaking is the semitone between a note and the same note altered by a sharp or a flat; and the diatonic semitone is the semitone between a note and another of a different name.

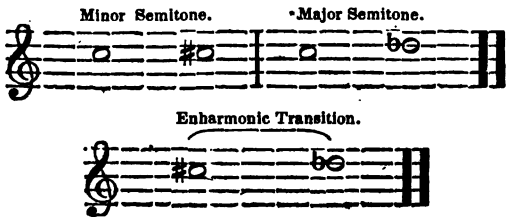


Chromatic scale ascending and descending by sharps.

Chromatic scale by flats.

Another chromatic scale.

A chromatic passage produced by a series of evitated cadences.

The same passage produced by diminished sevenths. In this succession all the parts follow a chromatic progression.

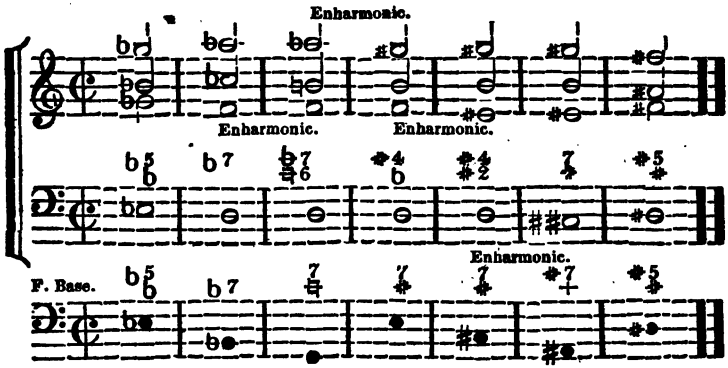


3. The enharmonic is the transition from a note to another, without materially affecting the intonation of that note.

For instance, from C to C♯, is a minor semitone, and from C to D♭, is a major semitone; these two notes according to the modern way of tuning the Piano Forte have the same intonation, of course if after C♯ D♭, is played or vice versa, those two notes although their name is changed, will not be sensibly altered in their intonation; this transition is called enharmonic.



The diminished seventh is best calculated to produce the enharmonic as it can be played on four different forms without a sensible alteration in the intonation of the notes.



This example begins in E♭ minor; at the third measure the C♭ becomes B♮, at the fourth measure the A♭, becomes G♯, at the fifth measure the F becomes E♯, at the sixth measure the D becomes C double sharp.

The example ends in D♯ minor, a key which on the Piano Forte corresponds to E♭.

The discord in the chord of diminished seventh always undergoes an enharmonic change which produces the enharmonic.

N. B. The fundamental base shows that this succession is introduced by a series of interrupted cadences.

CHAPTER XI.

ON PEDAL NOTES.

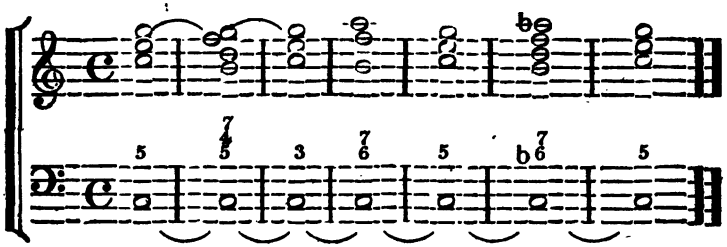
A pedal note or organ point is the prolongation in the base of a note, on which several chords foreign to its harmony are introduced; these discords, however, must now and then contain the pedal note, without which the effect would be unpleasant.

A pedal note may be introduced either on the tonic or on the dominant.

In the pedal note on the tonic are introduced more particularly the chords of the dominant seventh, imperfect seventh, and diminished seventh, because these chords being resolved on the tonic, the pedal note often makes part of the harmony.

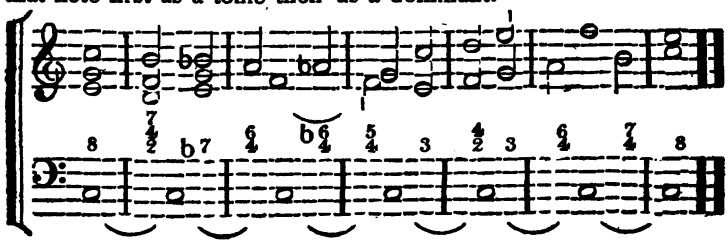
EXAMPLE I.

ON THE TONIC.

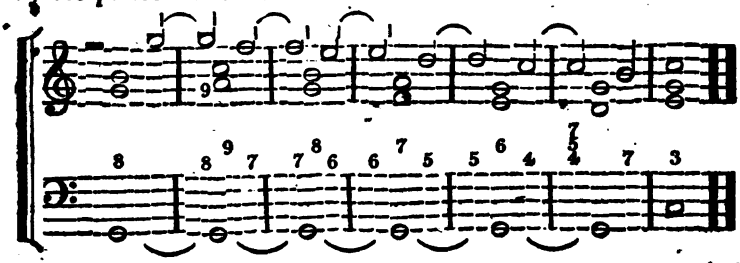
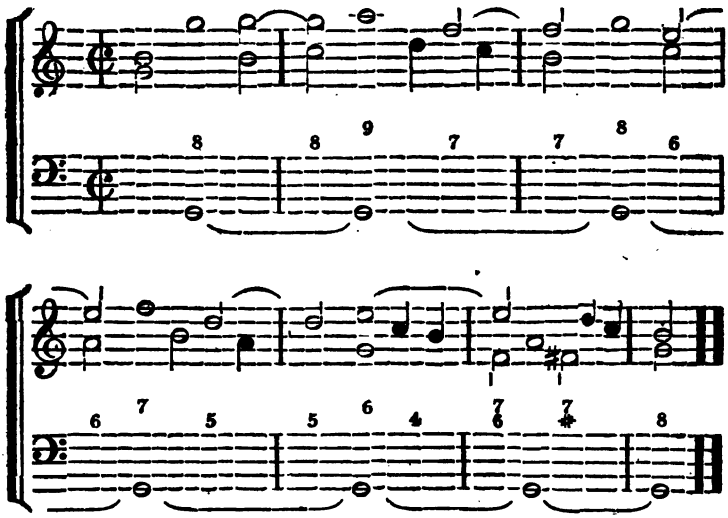


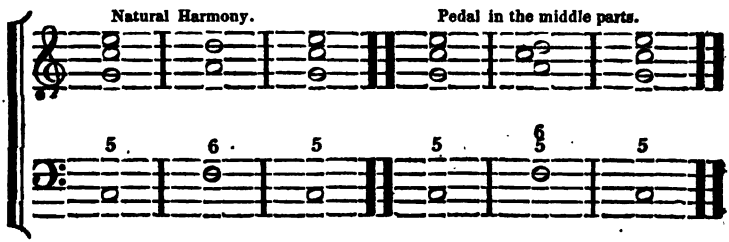
EXAMPLE II.

A modulation can be introduced on a pedal note by considering that note first as a tonic then as a dominant.

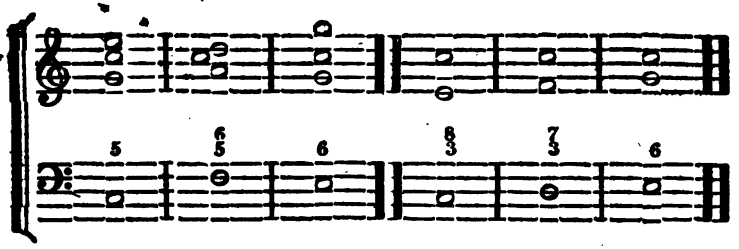


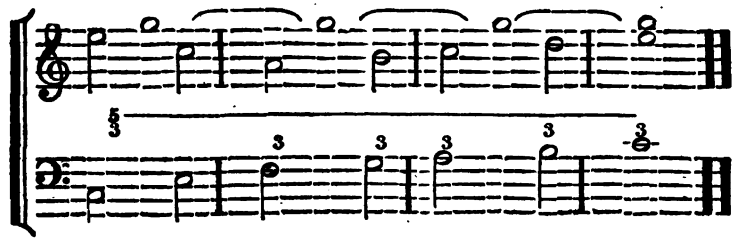
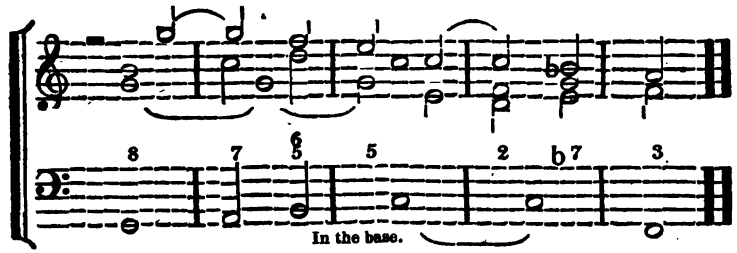
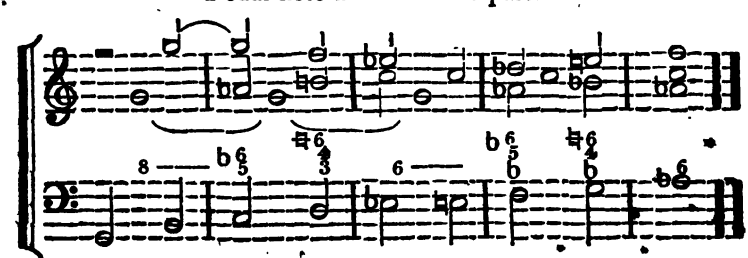
EXAMPLE III.

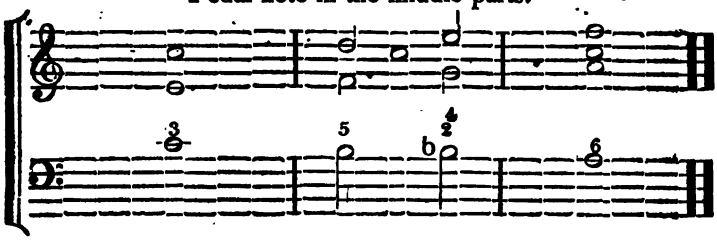
The pedal note on the dominant admits of all the consonant and dissonant progressions; it should begin by the dominant, and end by the perfect cadence on the tonic.

Pedal notes are chiefly introduced in the base part, and the harmony placed above the pedal note must be as distant from it as possible.

In some cases a pedal note may be introduced in the middle, and even highest part, provided the prolonged note form a part of the following chord, thus :



When a pedal note, either in the middle or upper part, makes an interval of second or seventh with one of the notes of the chord, this note must not form afterwards an unison or an octave with the pedal note ; but it must be parted from it by a consonant interval.



Dominant pedal note placed in the upper part.

Pedal note in the middle.

Pedal note in the middle parts.

Pedal note in the middle parts.



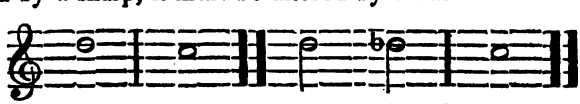
CHAPTER XII.

OF ALTERED CHORDS

One or two notes of a chord may be altered, when by this alteration, the note or notes follow their natural progression.

For instance, if D is to ascend to E, after having played D natural, we may play D sharp, which leads to E.

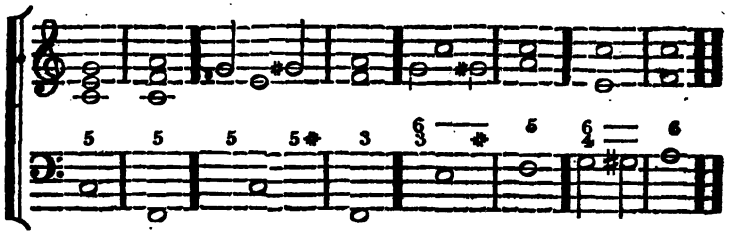
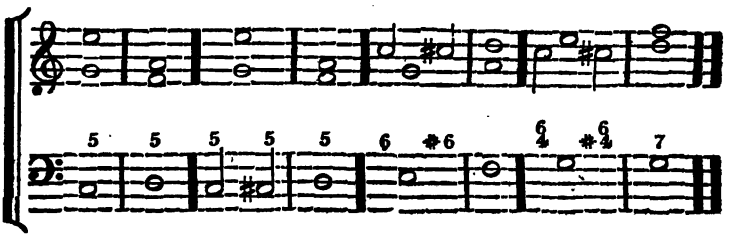
On the contrary, if the D is to descend to C, instead of being altered by a sharp, it must be altered by a flat.

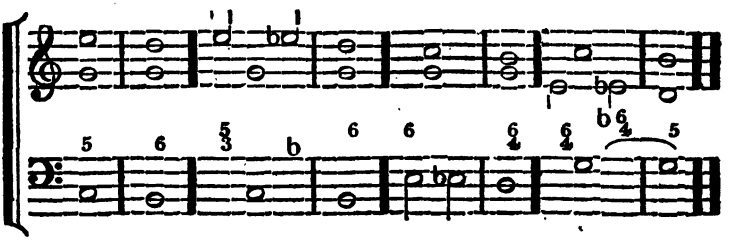


All chords may receive one or more alterations.

1st. MAJOR COMMON CHORD WITH ALTERATIONS.*

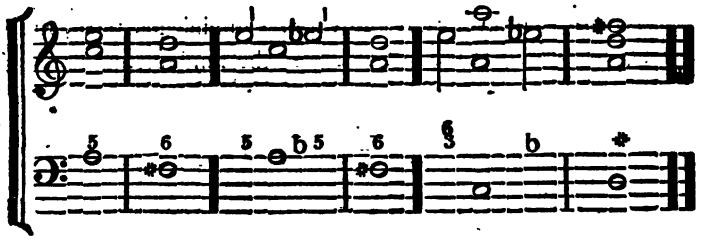
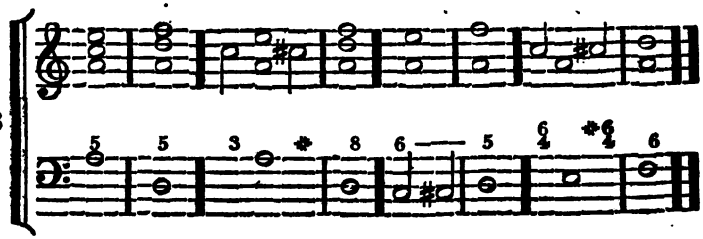
1. The fifth in the major common chord may be altered in ascending: this alteration gives an interval of extreme sharp fifth, and the chord is composed of two major thirds placed above one another.

* This alteration may be also introduced in the inversions.

2. The major common chord may be likewise altered in its fundamental note ascending, then the chord becomes diminished, or imperfect.

3. The major common chord may be altered in its third, in descending, by this alteration the chord becomes minor.

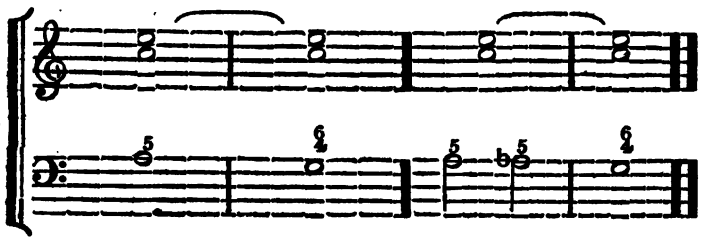
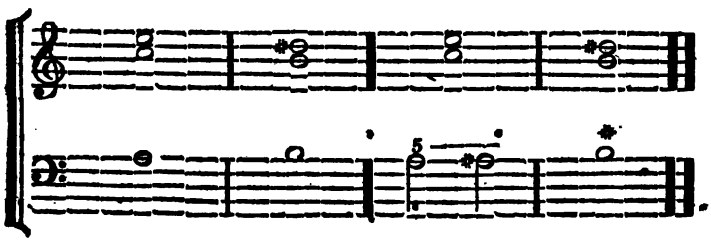
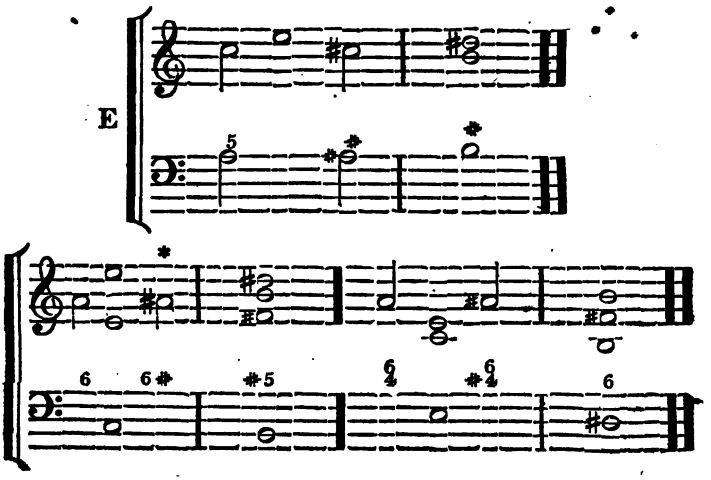


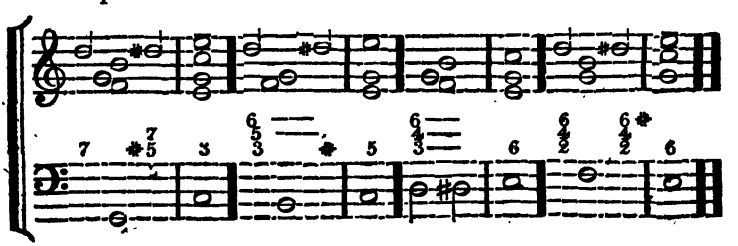
2d. MINOR COMMON CHORD WITH ALTERATIONS.

The minor common chord may be altered in its fifth in descending; then it becomes an imperfect common chord, (A): the third ascending may be likewise altered; then the chord becomes major. (B).

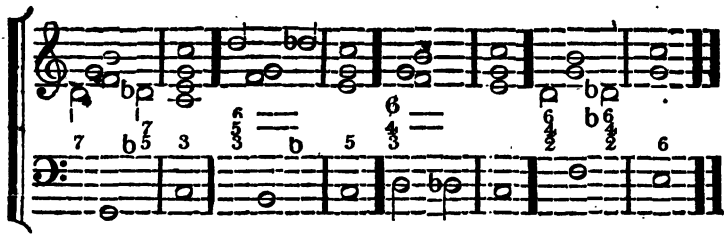
A

B

The fundamental note may be also altered in descending and ascending.

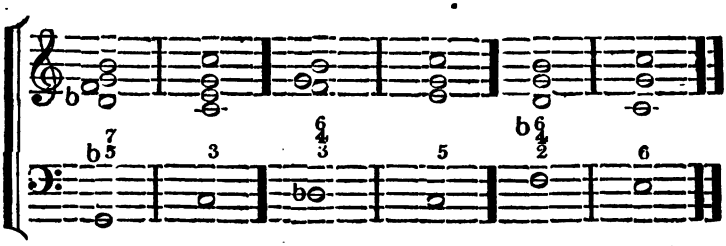
The alteration in descending gives a superfluous fifth, (C); and in ascending it gives a diminished fifth and diminished third. (D).

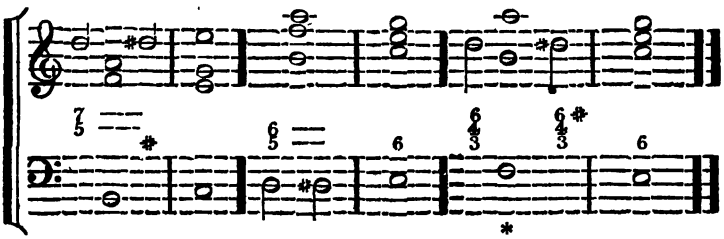
C

D

N. B. To avoid the interval of a diminished third, the third must be altered at the same time as the fundamental note. (E).

3d. DOMINANT SEVENTH WITH ALTERATIONS.

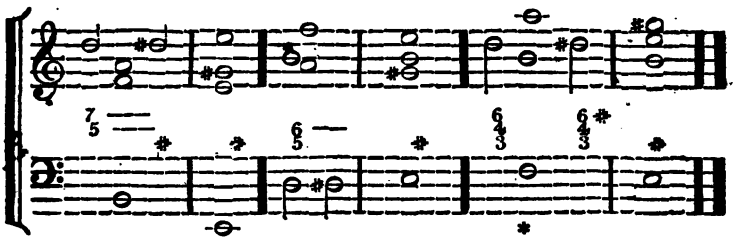
1. The dominant seventh may be altered in its fifth in descending and ascending, taking care to change the diminished third into a superfluous sixth.

When the dominant seventh is altered in its fifth in descending, this alteration, which in the key of C changes the D♮ into D♭, indicates the key of F minor; and the common chord on C, is but a close on the dominant.

* The inversions of the diminished third, giving an interval of superfluous sixth; the best way to use this alteration is to present the chord as a sixth, in this form the alteration is often used. (F).



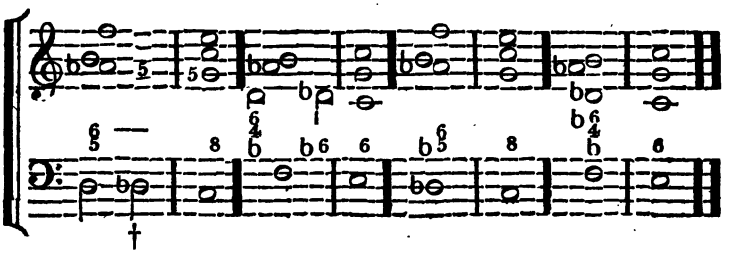
N. B. The alteration can take place without being preceded by the natural note.

4th. ALTERATIONS IN THE CHORD OF MINOR SEVENTH AND FLAT FIFTH.

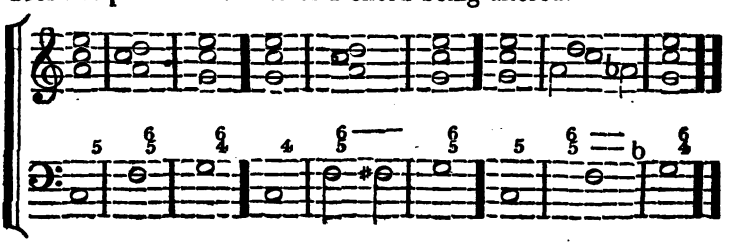
1. The chord of minor seventh and false fifth ascending, may be altered in its third. The interval of diminished third must be inverted into that of superfluous sixth.

2. The minor seventh and false fifth on the second degree of the scale in minor, may be altered in its third, in ascending. Changing the diminished third into a superfluous sixth.

* This chord is denominated the superfluous sixth and tritone.

5th. ALTERATIONS IN THE CHORD OF DIMINISHED SEVENTH.

1. The diminished seventh may be altered in its third in descending.

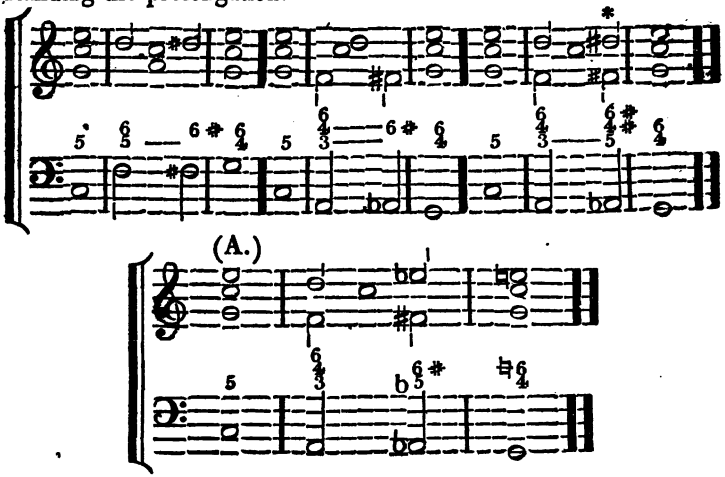
This alteration is only used on the two first inversions of the diminished seventh; not in the direct chord.

The common chord, which follows the altered diminished seventh, must be major, for this passage forms a close on the dominant.

The prolongation in a chord of a note foreign to the harmony, does not prevent the note of a chord being altered.



* This chord is denominated the superfluous sixth and tritone.

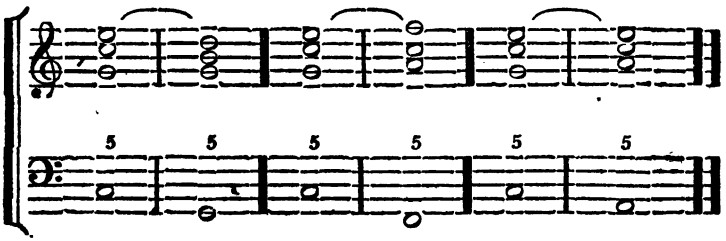
† The two consecutive fifths in this passage are tolerated, provided that they are not in the extreme parts, that is to say, between the highest part and the lowest.

One, two, or three notes of a chord may be altered, notwithstanding the prolongation.

CHAPTER XIII.

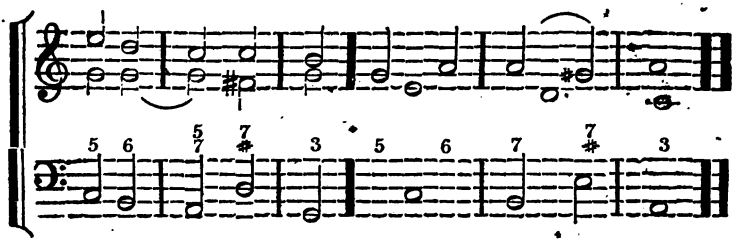
ON MODULATION.

Modulation is the transition from one key or mode to another.

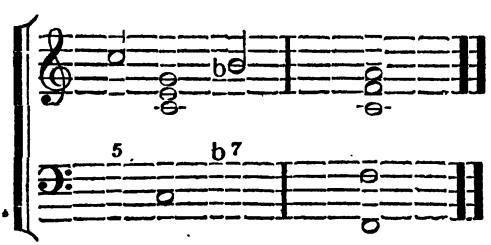
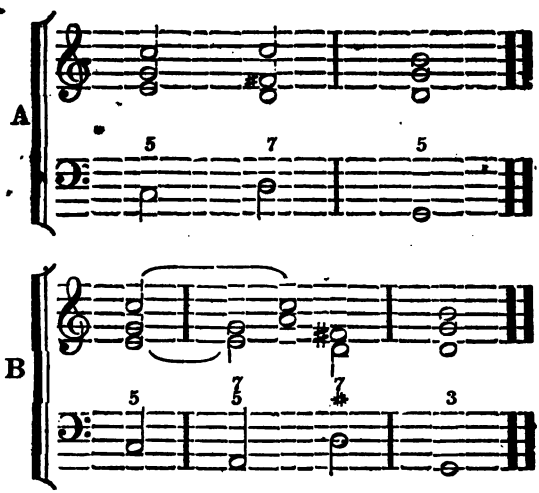
To modulate in a pleasing manner, the common chord of the new key introduced, must have at least one note in common with that of the last key; this note serves as a connection between them.

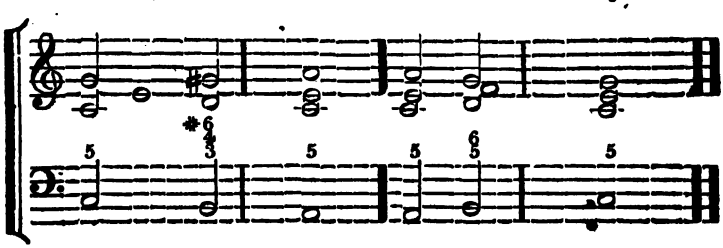


* To avoid the interval of the fourth doubly sharpened, which exists from Ab to D𝄪, Eb must be written instead of D𝄪. (See A).

A new key is not determined by merely striking its common chord, the leading note should also be heard; the best way of establishing a new key is by a perfect cadence, which gives the leading note followed by the tonic.

Modulation may be effected by fifths ascending or by fifths descending.

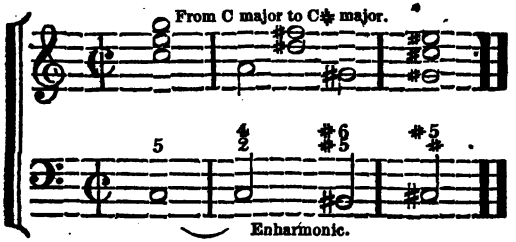
In the modulation by fifths ascending, a new sharp is introduced at every key: in the modulation by fifths descending, a new flat is introduced.

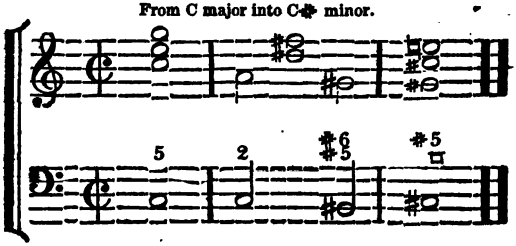
N. B. This latter modulation is the most natural, for without the assistance of any intermediary chord, one may pass from C to F, from F to B♭, &c. by adding the minor seventh to the major common chord; which renders it a dominant seventh, and establishes a perfect cadence, (the dominant descending a fifth on the tonic), this cadence fully establishes the new key.

On the contrary, if a modulation by fifths ascending be intended, the common chord of the new key must be preceded by the dominant seventh, (A), and even this dominant seventh should be connected with the preceding chord, and will be better introduced as at (B).

Although the modulation by fifths descending is more simple and easy than that by fifths ascending; yet the general way of modulating is after the principal key, to the dominant or fifth above, and the modulation to the fifth below is introduced afterwards.

The modulation into the relative key is likewise very simple and much used; whether it be done from the major mode to the relative minor, or from the minor mode to the relative major.

Modulations are chiefly effected by introducing cadences, or by evitating and interrupting them. It is difficult to prescribe fixed rules for modulation, the only one which ought to be constantly followed, is to please the ear; this is the end of music, and rules have been established merely to attain this end.

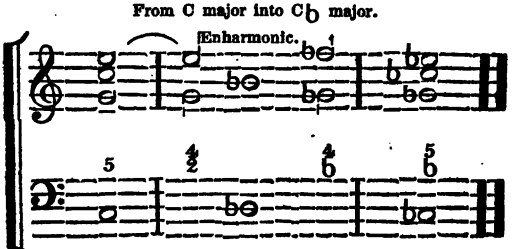
MODULATIONS.

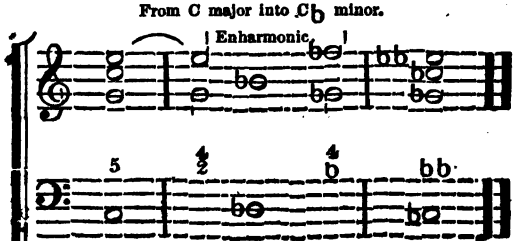
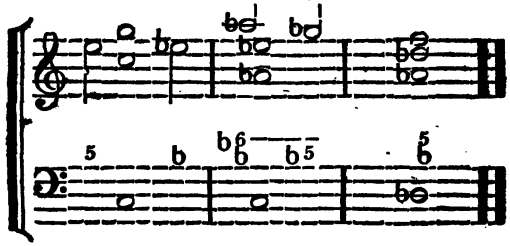
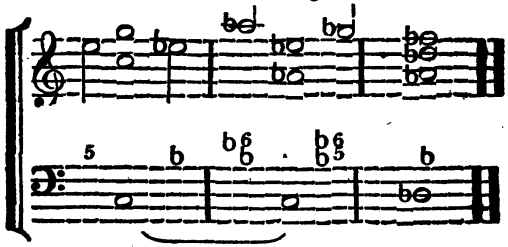
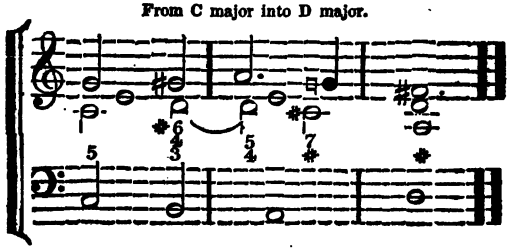
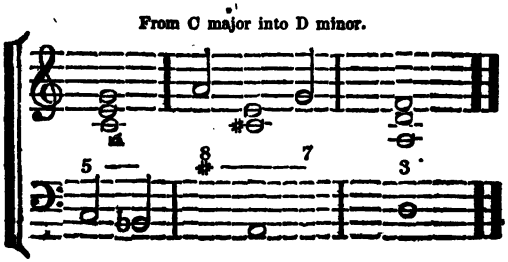
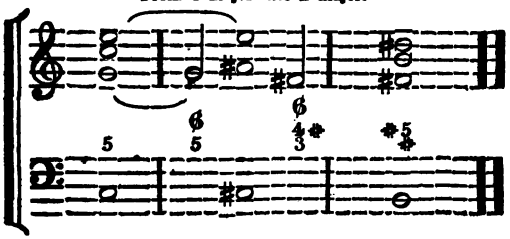
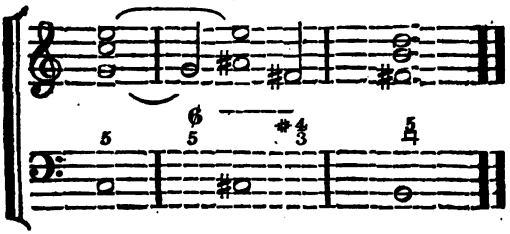
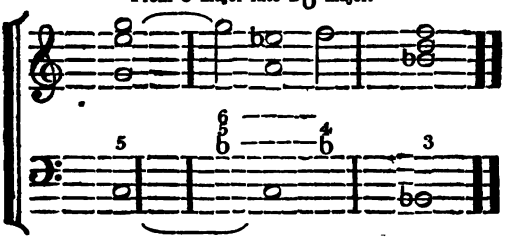
From C major into all the major and minor keys.

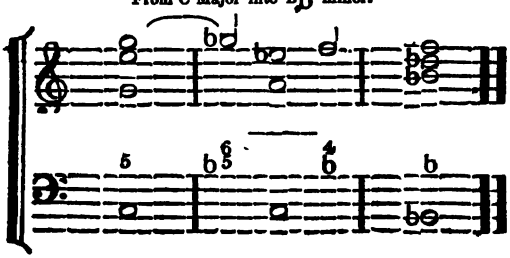
From C major to C♯ major.

From C major into C♯ minor.



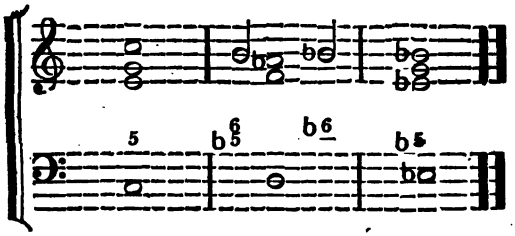
From C major into C♭ major.



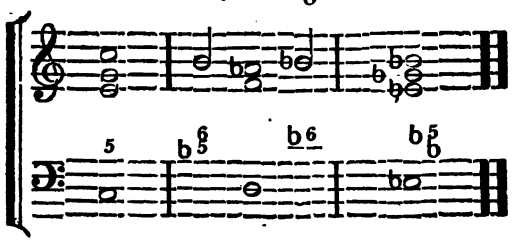
From C major into C♭ minor.

From C major into D♭ major.

From C minor into D♭ minor.

From C major into D major.

From C major into D minor.

From C major into B major.

From C major into B minor.

From C major into B♭ major.

From C Major into B♭ minor.



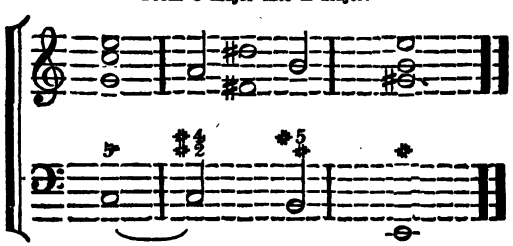
From C major into E♭ major.

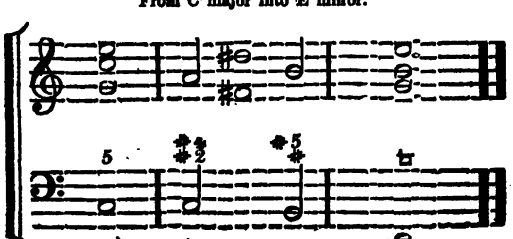
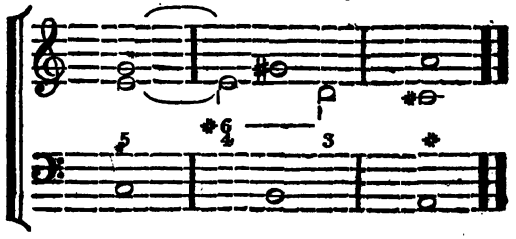
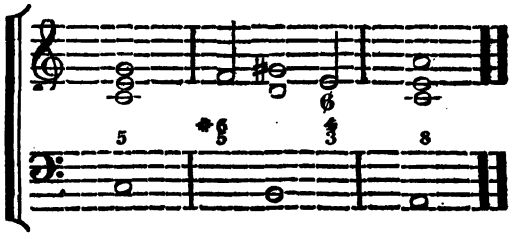


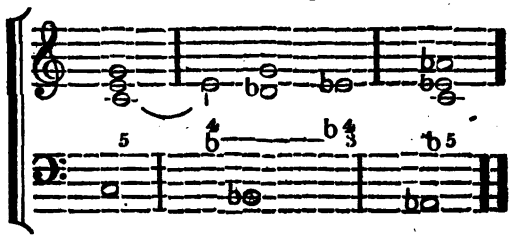
From C major into E♭ minor.



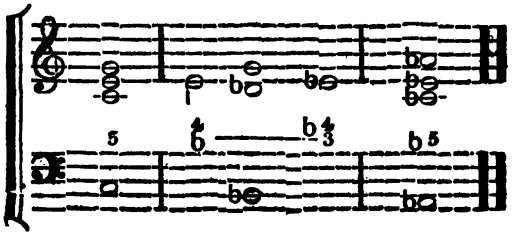
From C major into E major.

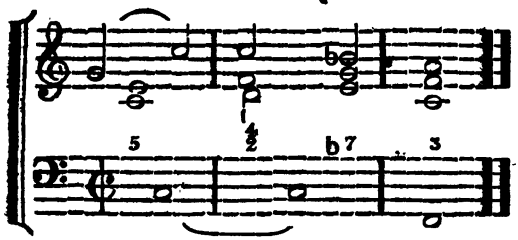
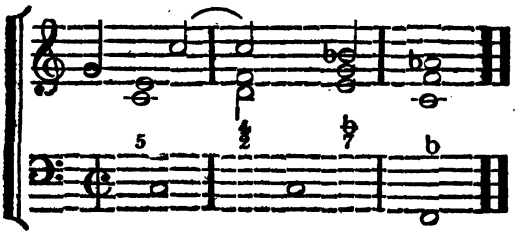
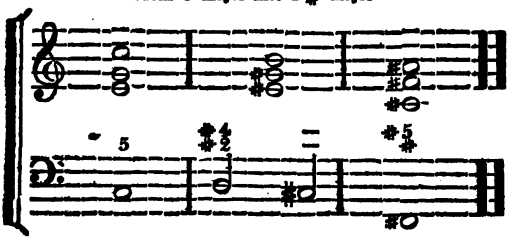
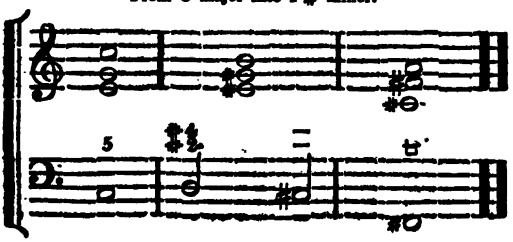
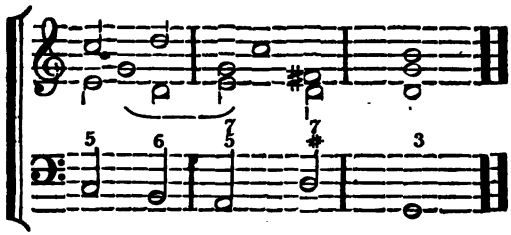
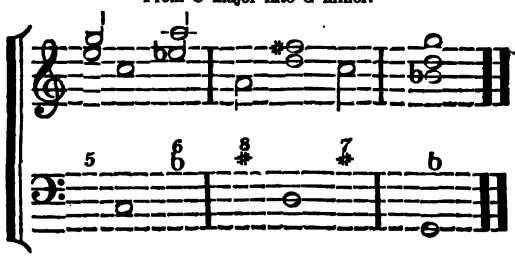


From C major into E minor.

From C major into A major.

From C Major into A minor.

From C major into A♭ major.

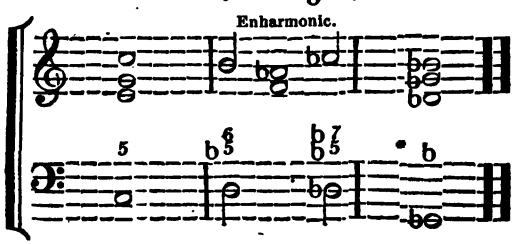


From C major into A♭ minor.



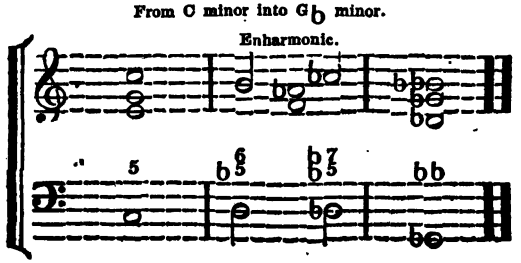
From C major into F major.

From C major into F minor.

From C major into F♯ major

From C major into F♯ minor.

From C major into G major.

From C major into G minor.

From C major into G♭ major.

Enharmonic.



From C minor into G♭ minor.

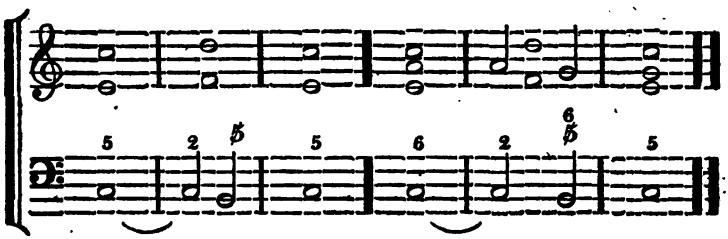
Enharmonic.

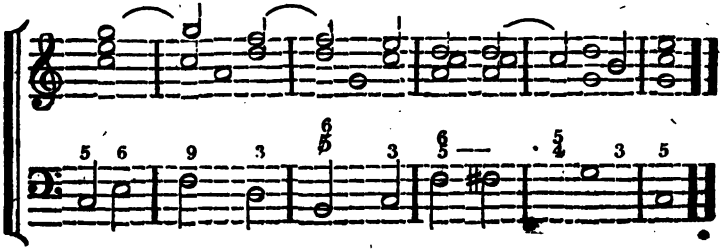


CHAPTER XIV.

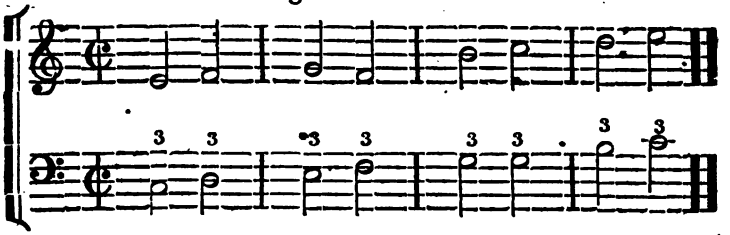
ON THE SIGNATURES USED IN THOROUGH BASE.

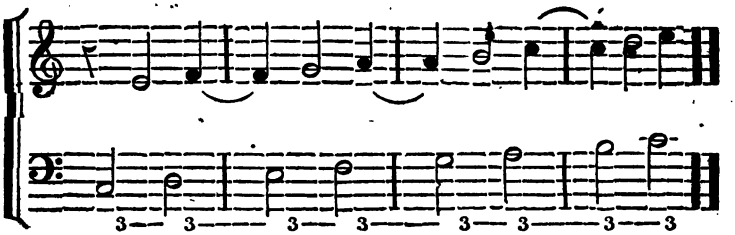
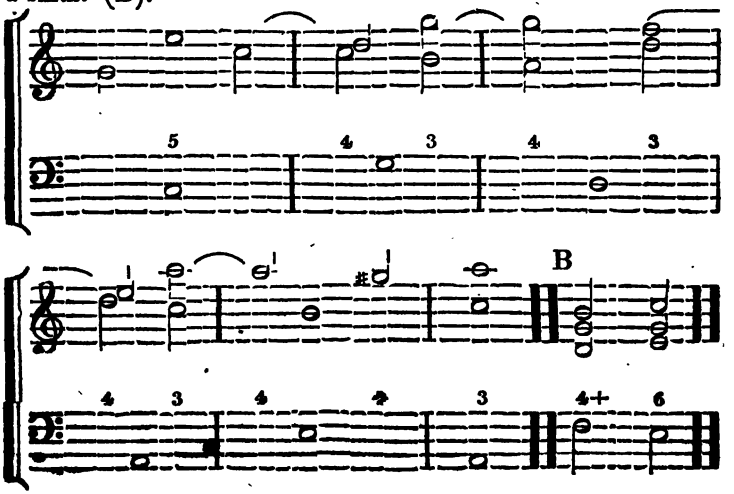
Figures are placed above or below the base notes, to represent chords; a single figure not only indicates that the interval which it expresses is to be played, but that one or two more must be added.

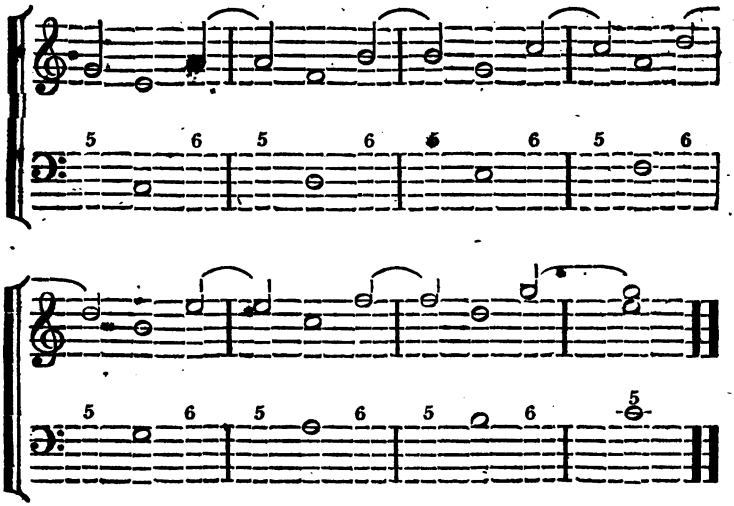
A figure 2, implies $\frac{4}{2}$, sometimes it means $\frac{6}{4}$.*

A 3 implies $\frac{5}{3}$ or $\frac{8}{5}$.

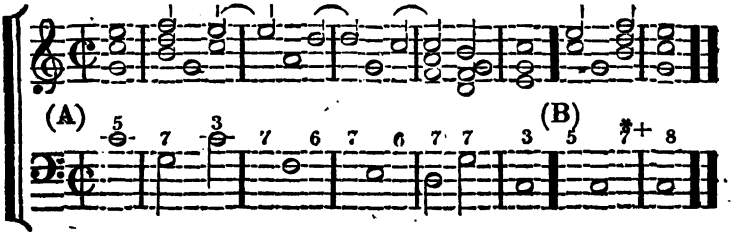
N. B. The common chord is figured 3. when the resolution of the discord is made on the 3d.

* Both figures are most commonly used, thus, $\frac{4}{2}$.

When a series of thirds is figured, as in the following example, no other interval is wanting.



The thirds retarded.

A 4 implies $\frac{5}{4}$; when the 4 is followed by a cross, thus 4+ it indicates the chord of the tritone accompanied by a second and a sixth. (B).*

*Both figures $\frac{5}{4}$ are usually used. The cross after the 4 is often omitted.

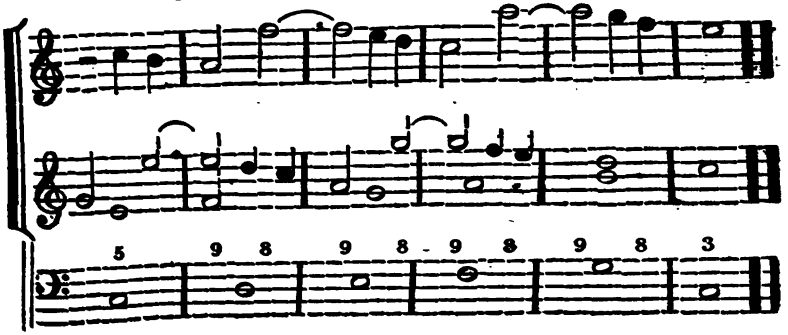
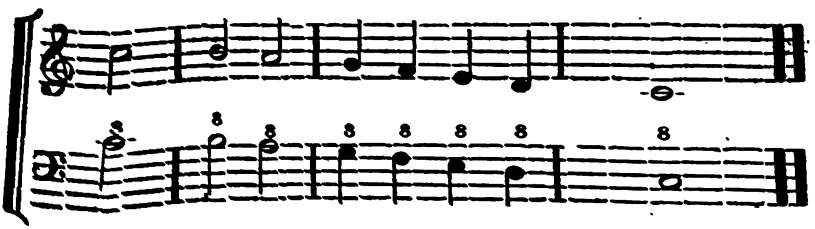
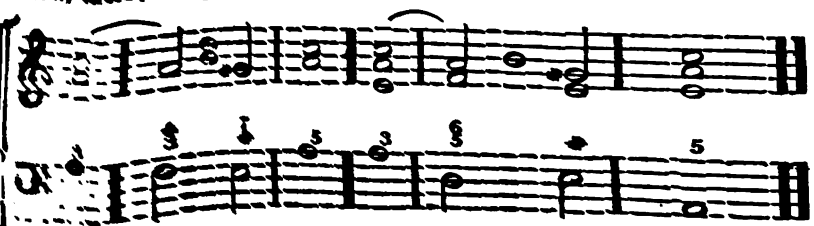
A 5 implies $\frac{5}{3}$, a 6 implies $\frac{6}{3}$.

A 7 implies $\frac{7}{3}$, sometimes $\frac{7}{5}$. (A).

When the 7 is preceded or followed by a cross, thus, 7+ or +7 it denotes the chord of superfluous seventh formed by the dominant seventh played on the key note, then it is accompanied by $\frac{5}{2}$ thus $\frac{7}{5}$. (B).

N. B. When the + is under the 7, it indicates the dominant seventh.

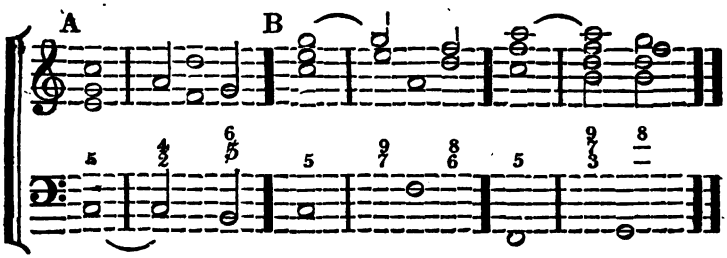
* It is more common to figure this chord $\frac{7}{4}$ or $\frac{7}{5}$.

The figure 8 implies $\frac{8}{3}$.

The common chord is figured 8, when the resolution of a discord is made on the octave, as 9–8.

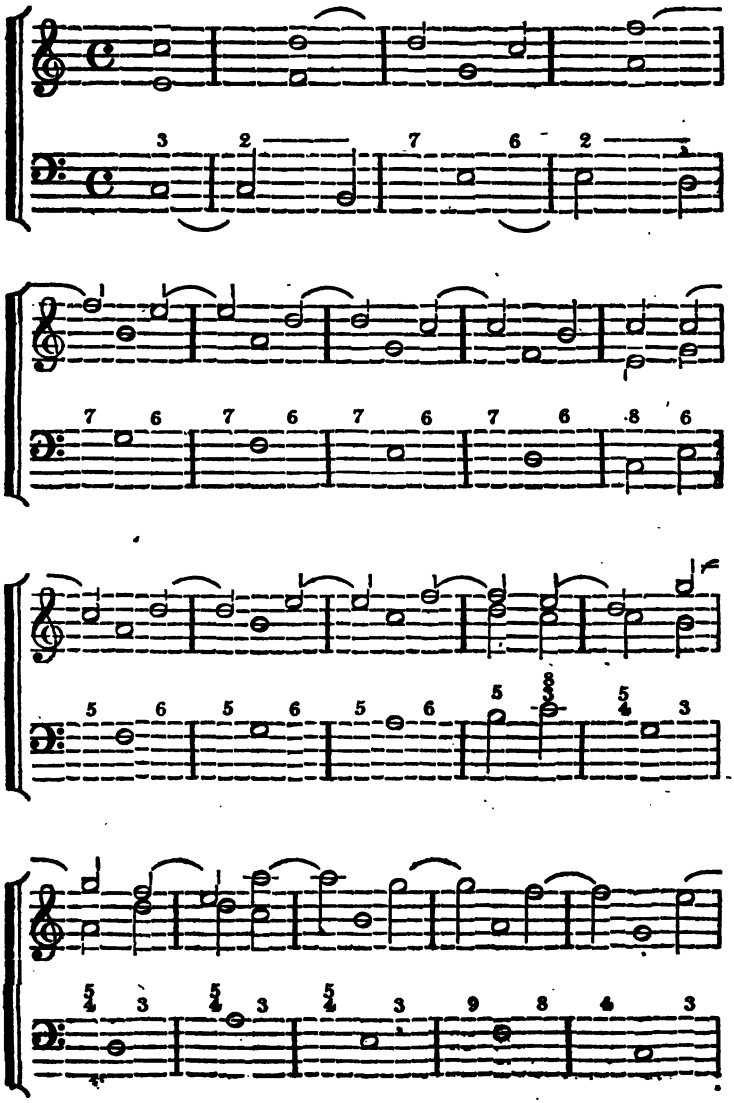
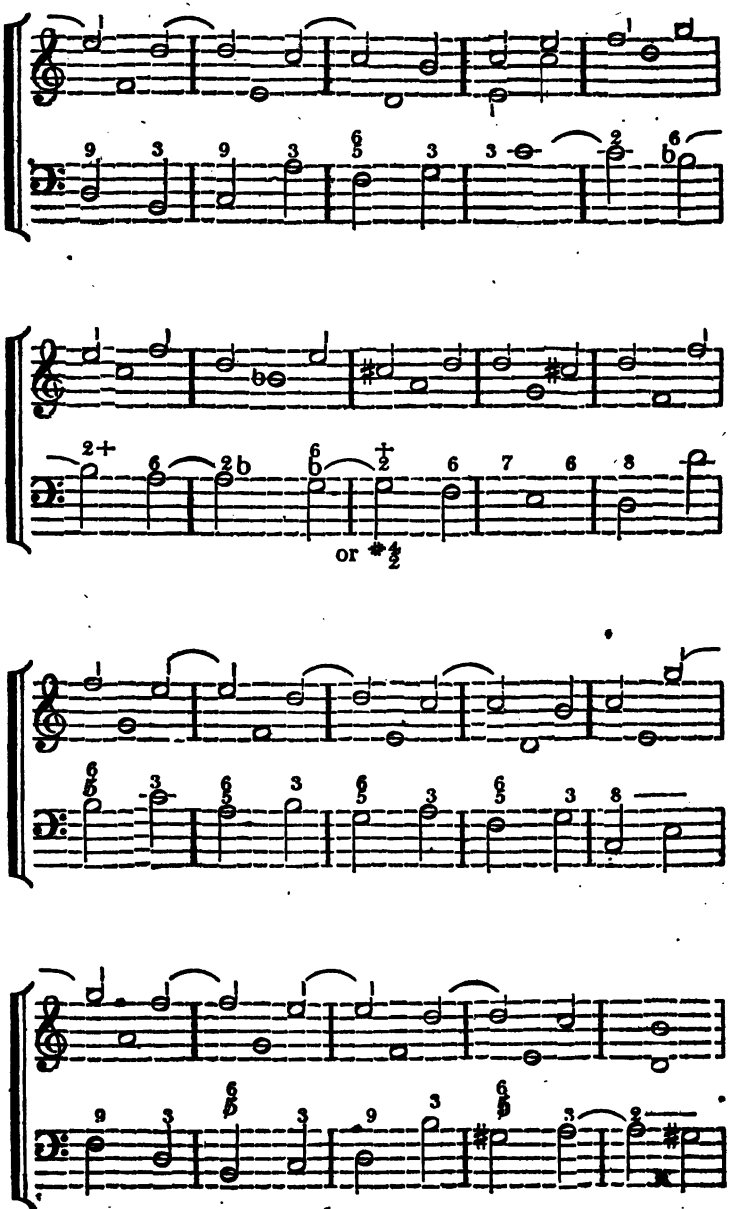
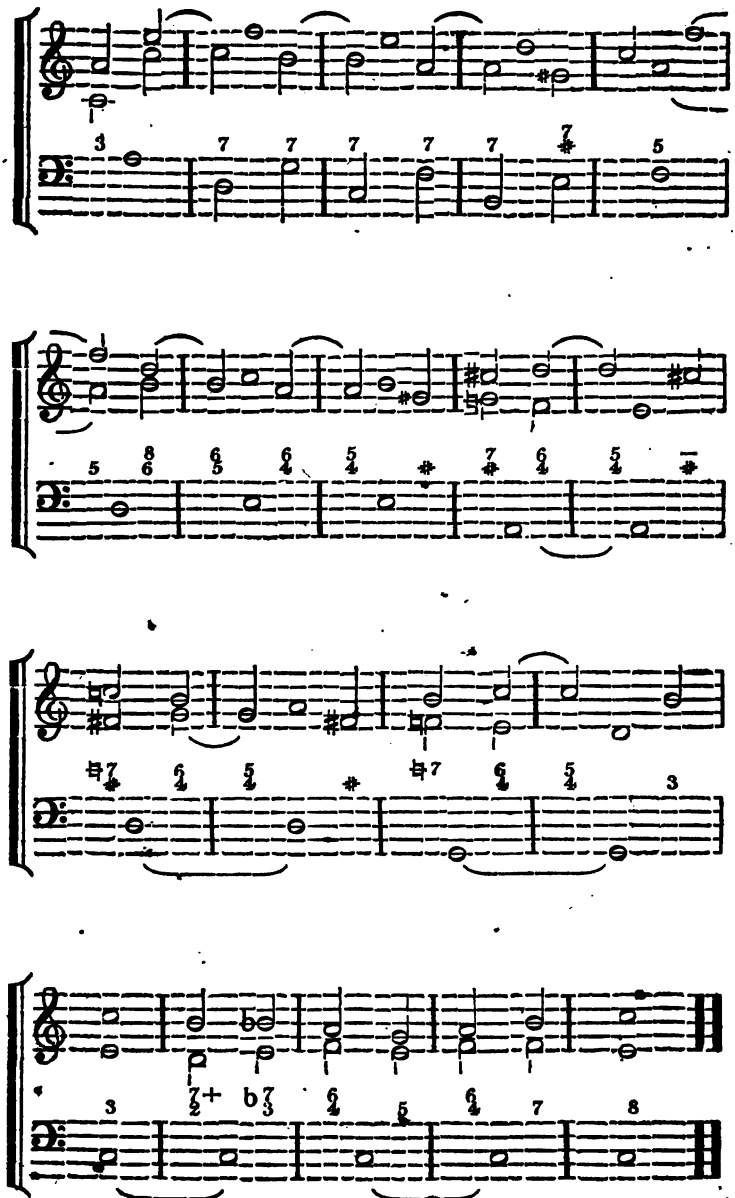
A 9 implies $\frac{9}{5}$ or $\frac{9}{3}$.

Several (8s) one after the other, show that the parts are played in octaves.

Sometimes two figures indicate one or several notes to be added, thus, to $\frac{4}{3}$ a 6 is added, and to $\frac{6}{5}$ a 3 is added.

$\frac{4}{2}$ implies $\frac{6}{4}$. (A).

$\frac{9}{7}$ implies $\frac{9}{7}$, or sometimes $\frac{9}{7}$. (B),



The best mode of avoiding the difficulty attending the number of notes to be added to one figure, is to accompany only with two parts, and to add the interval the most essentially connected with each single figure. When two figures are marked over a note nothing need be added; by that means every mistake will be avoided, for it is better to omit a note in a chord than to add one which does not properly belong to it. The purest harmony being in three parts.

Chords	Expressed	Accompanied	Expressed	Accompanied
	thus 2	with $\frac{4}{2}$	thus 5	by - - $\frac{5}{3}$
	— 3	by $\frac{5}{3}$ or $\frac{8}{3}$	— 6	by - - - - $\frac{6}{3}$
	— 4	by $\frac{5}{4}$	— 7	by - - $\frac{7}{3}$
	— 4+	by $\frac{4}{2}$+	— 7+	by - - - - $\frac{7}{2}$+
			— 8	by - - $\frac{8}{3}$
			— 9	by - - - - $\frac{9}{3}$

EXAMPLE ON ACCOMPANIMENT.

or

3 7 7 7 7 7 7 5
5 8 6 6 5 6 4 5 4 7 6 5
7 6 5 3
3 7+ b7 6 5 6 7 8

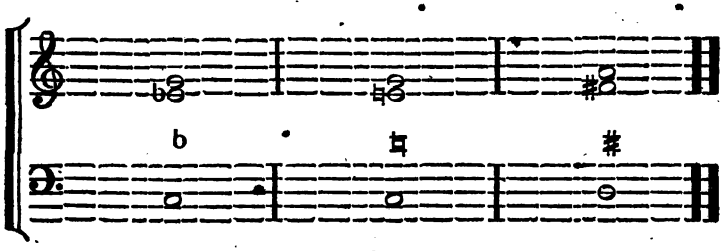
Several characters are occasionally used either above, below, before or after the figure, for the purpose of augmenting or diminishing the intervals expressed by them.

These are the sharp, flat, natural, a cross, and a dash across the figure.

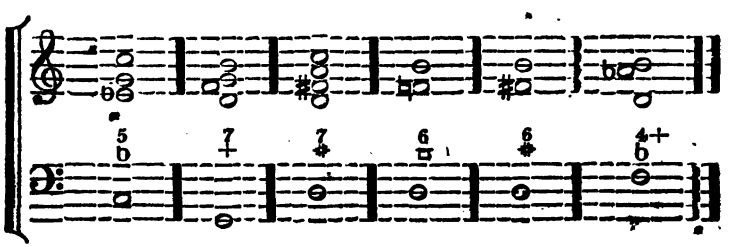
A sharp elevates, a flat depresses, and a natural restores an interval. The cross elevates, and is often used for the same purpose as a sharp.

A dash drawn across a figure usually denotes a diminished interval. But if drawn nearly across the head of the figure, it is often used to denote a superfluous or sharped interval.

A flat, sharp, natural, or cross used alone always affects the third.



When the sign is placed under a figure, it shows that the third which it represents is to undergo the alteration indicated by the sign.



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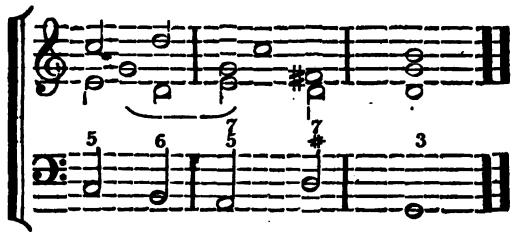
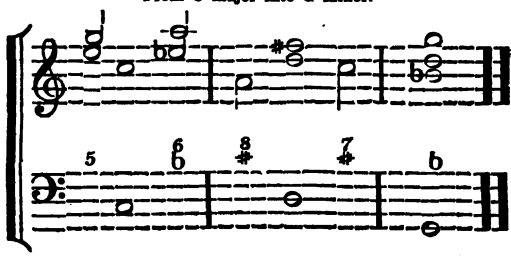
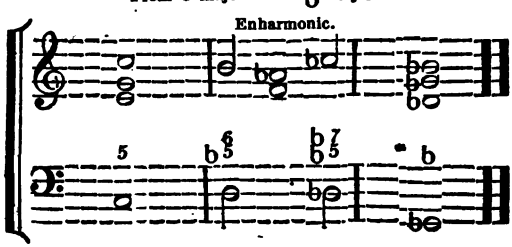
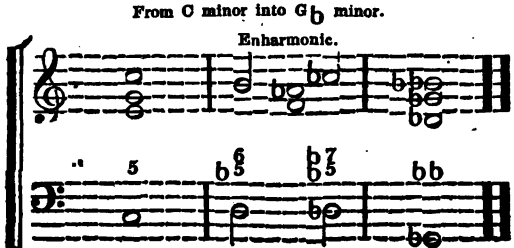

From C major into G minor.

From C major into G♭ major.

Enharmonic.



From C minor into G♭ minor.

Enharmonic.



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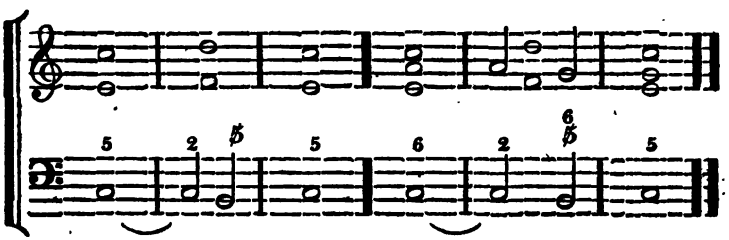

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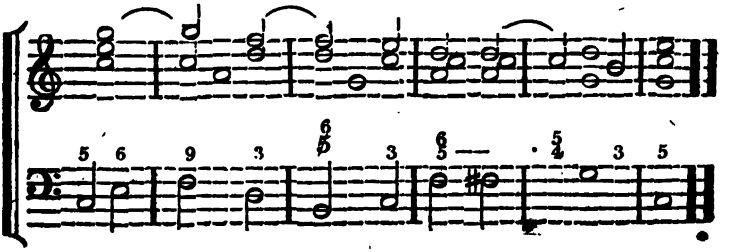
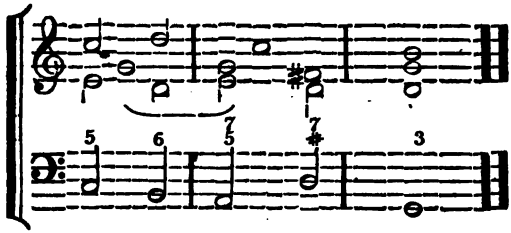
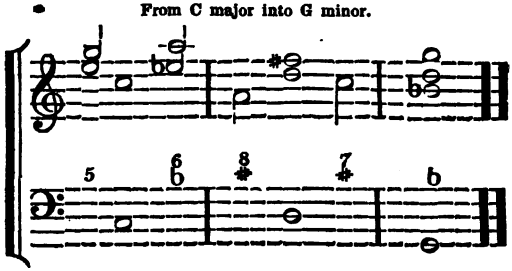
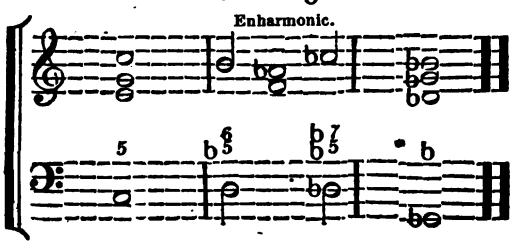

* Both figures are most commonly used, thus, $\frac{4}{2}$.

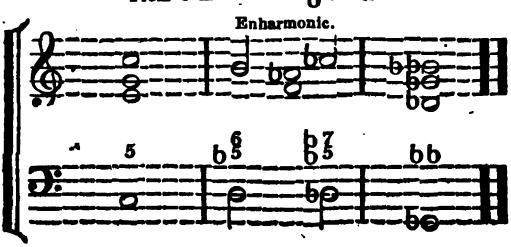
From C major into G major.

From C major into G minor.

From C major into $G\flat$ major.

Enharmonic.



From C minor into $G\flat$ minor.

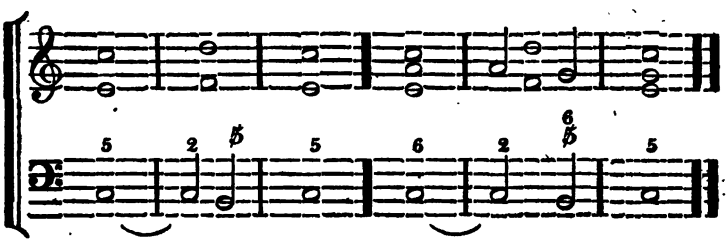
Enharmonic.

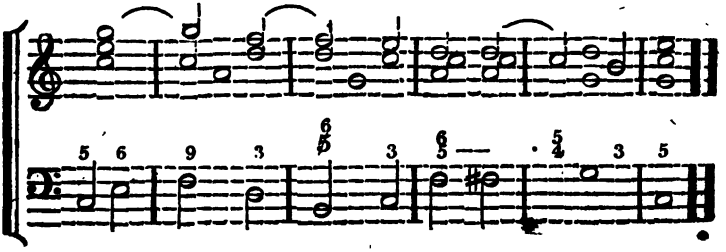


CHAPTER XIV.

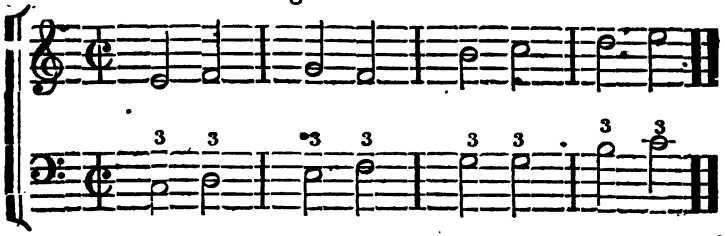
ON THE SIGNATURES USED IN THOROUGH BASE.

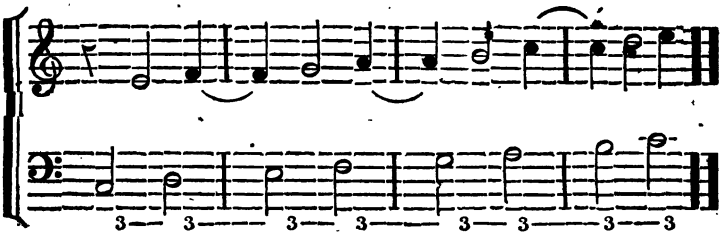
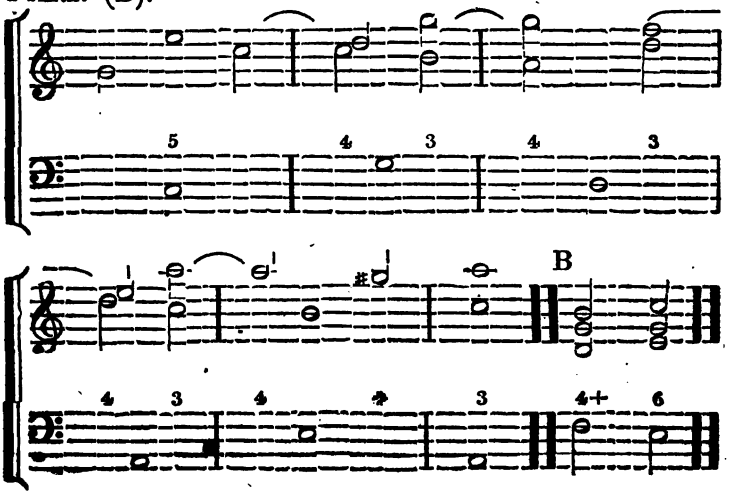
Figures are placed above or below the base notes, to represent chords; a single figure not only indicates that the interval which it expresses is to be played, but that one or two more must be added.

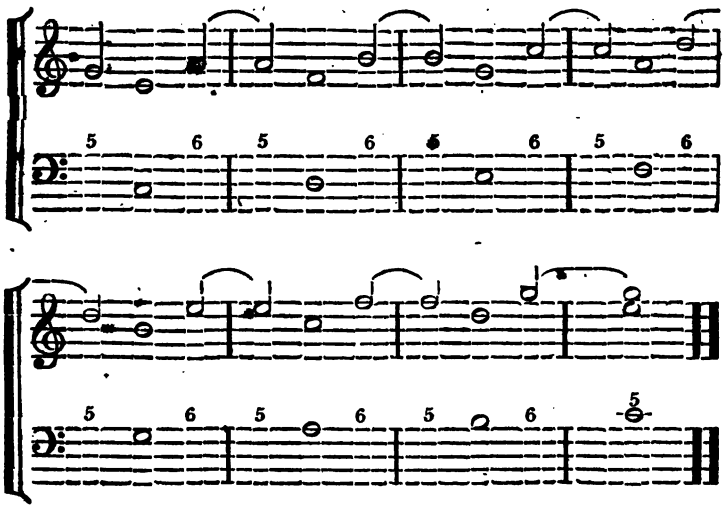
A figure 2, implies $\frac{4}{2}$, sometimes it means $\frac{6}{4}$.*

A 3 implies $\frac{5}{3}$ or $\frac{8}{5}$.

N. B. The common chord is figured 3. when the resolution of the discord is made on the 3d.

* Both figures are most commonly used, thus, $\frac{4}{2}$.

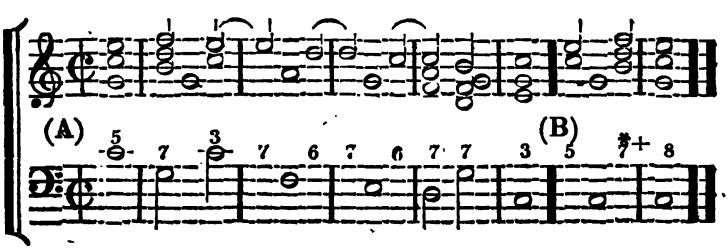
When a series of thirds is figured, as in the following example, no other interval is wanting.



The thirds retarded.

A 4 implies $\frac{5}{4}$; when the 4 is followed by a cross, thus 4+ it indicates the chord of the tritone accompanied by a second and a sixth. (B).*

*Both figures $\frac{5}{4}$ are usually used. The cross after the 4 is often omitted.

A 5 implies $\frac{5}{3}$, a 6 implies $\frac{6}{3}$.

A 7 implies $\frac{7}{3}$, sometimes $\frac{7}{5}$. (A).

When the 7 is preceded or followed by a cross, thus, 7+ or +7 it denotes the chord of superfluous seventh formed by the dominant seventh played on the key note, then it is accompanied by $\frac{5}{4}$ thus $\frac{7}{5}$. (B).

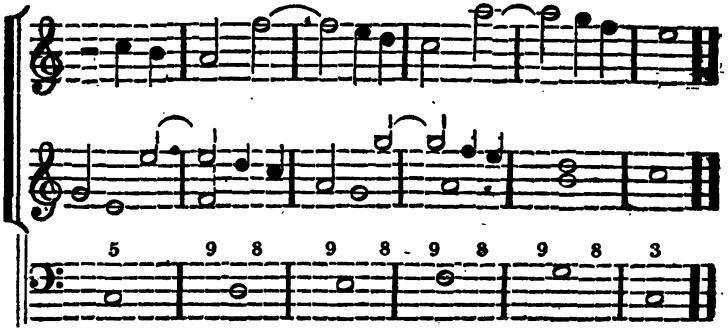
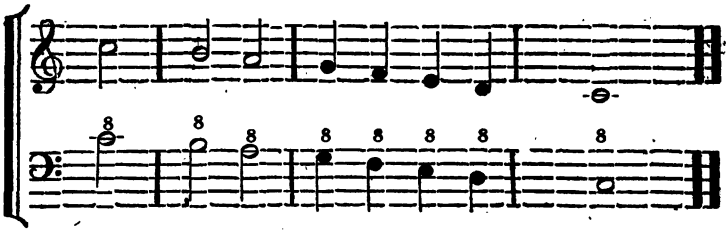
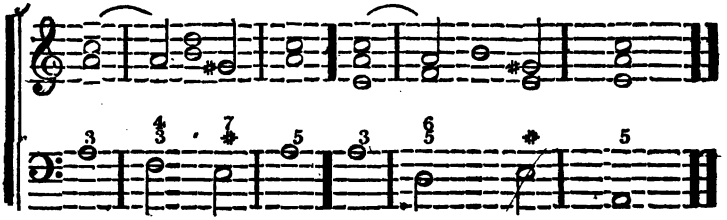


N. B. When the + is under the 7, it indicates the dominant seventh.

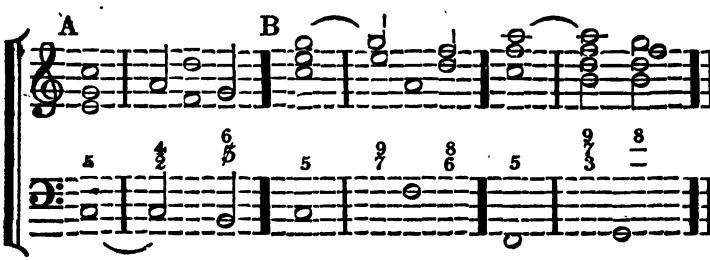
* It is more common to figure this chord $\frac{7}{2}$ or $\frac{7}{5}$.

The figure 8 implies $\frac{8}{3}$.

The common chord is figured 8, when the resolution of a discord is made on the octave, as 9–8.

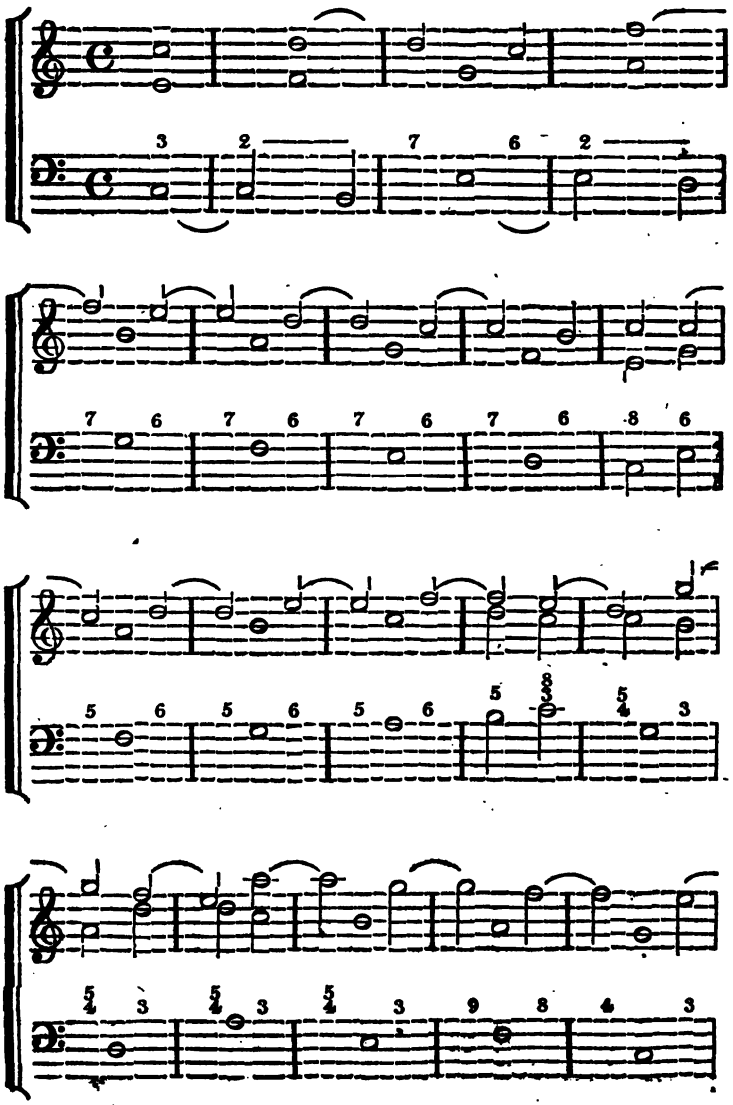
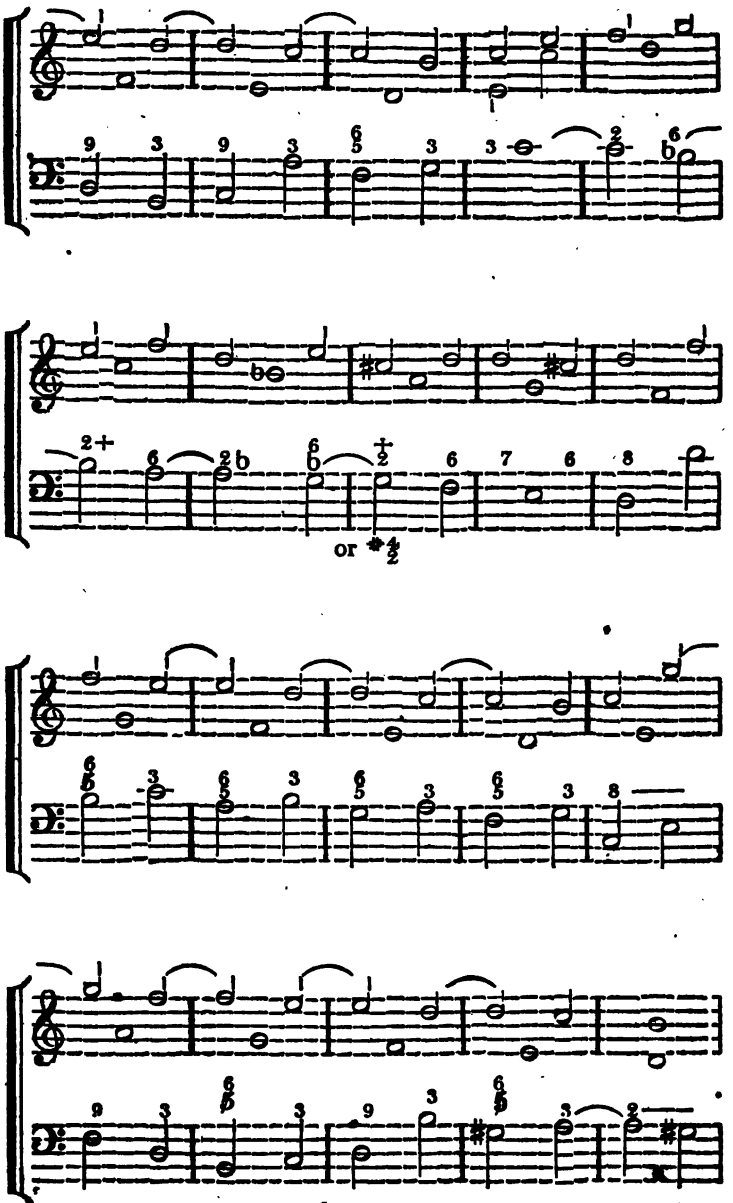
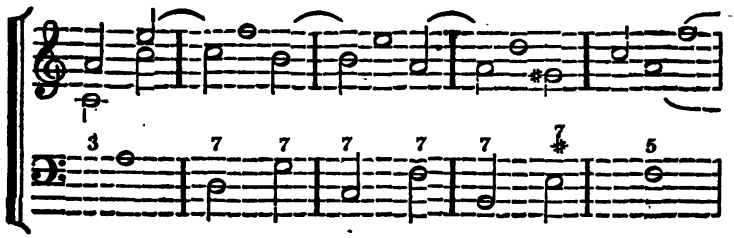
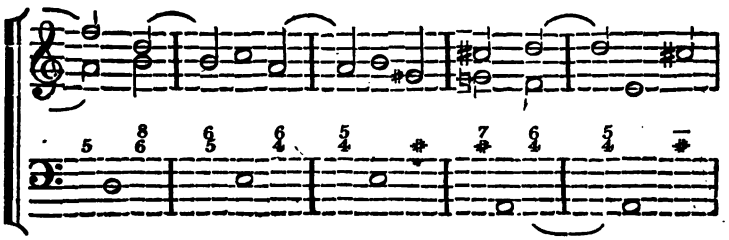
A 9 implies $\frac{9}{5}$ or $\frac{9}{7}$.

Several (8s) one after the other, show that the parts are played in octaves.

Sometimes two figures indicate one or several notes to be added, thus, to $\frac{4}{3}$ a 6 is added, and to $\frac{6}{5}$ a 3 is added.

$\frac{4}{2}$ implies $\frac{6}{4}$. (A).

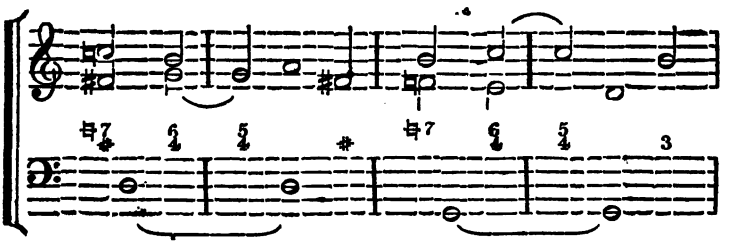
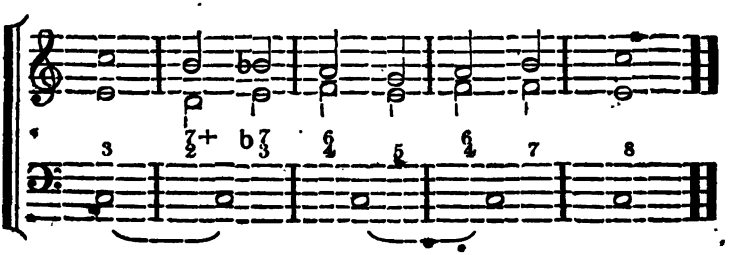
$\frac{9}{7}$ implies $\frac{9}{3}$, or sometimes $\frac{9}{7}$. (B),



The best mode of avoiding the difficulty attending the number of notes to be added to one figure, is to accompany only with two parts, and to add the interval the most essentially connected with each single figure. When two figures are marked over a note nothing need be added; by that means every mistake will be avoided, for it is better to omit a note in a chord than to add one which does not properly belong to it. The purest harmony being in three parts.

Chords	Expressed	Accompanied	Expressed	Accompanied
	thus 2	with $\frac{4}{2}$	thus 5	by -- $\frac{5}{3}$
	— 3	by $\frac{5}{3}$ or $\frac{8}{3}$	— 6	by ---- $\frac{6}{3}$
	— 4	by $\frac{5}{4}$	— 7	by -- $\frac{7}{3}$
	— 4+	by $\frac{4}{2}$+	— 7+	by ---- $\frac{7}{2}$+
			— 8	by -- $\frac{8}{3}$
			— 9	by ---- $\frac{9}{3}$

EXAMPLE ON ACCOMPANIMENT.

or

3
7
7
7
7
7
7
5

5
8 6
6 5
6 4
5 4
7
6 4
5 4

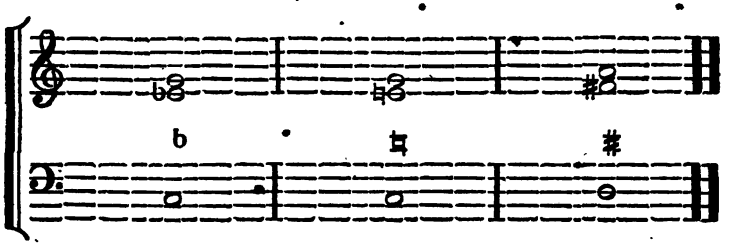

7
6 4
5 4
7
6 4
5 4
3

3
7 2 +
b 7 3
6 4
5
6 4
7
8

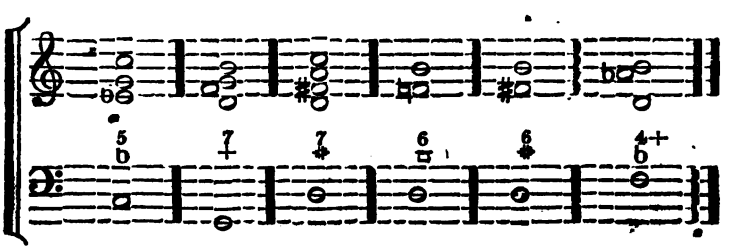
Several characters are occasionally used either above, below, before or after the figure, for the purpose of augmenting or diminishing the intervals expressed by them.

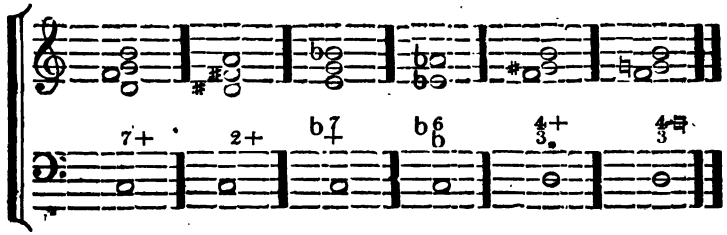
These are the sharp, flat, natural, a cross, and a dash across the figure.

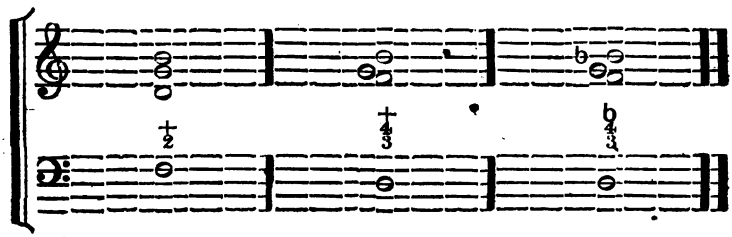
A sharp elevates, a flat depresses, and a natural restores an interval. The cross elevates, and is often used for the same purpose as a sharp.

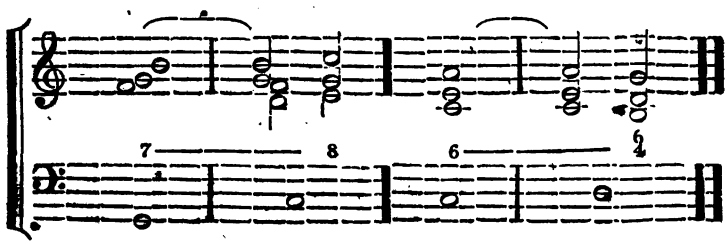
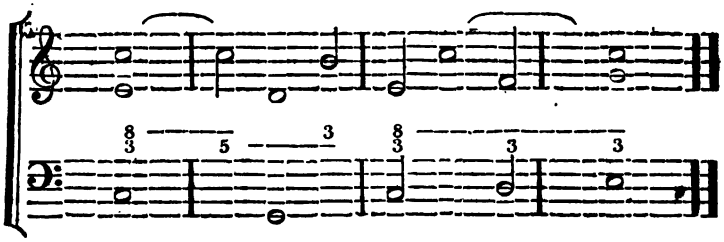
A dash drawn across a figure usually denotes a diminished interval. But if drawn nearly across the head of the figure, it is often used to denote a superfluous or sharped interval.

A flat, sharp, natural, or cross used alone always affects the third.

When the sign is placed under a figure, it shows that the third which it represents is to undergo the alteration indicated by the sign.

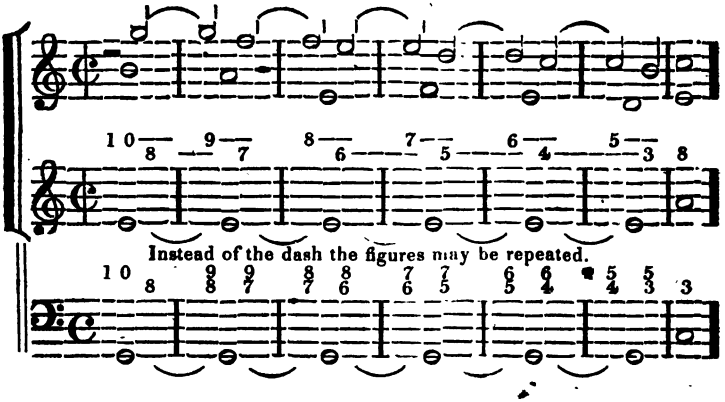


When the sign is placed before the figure or after it, the interval which the figure represents must be altered accordingly.

When the sign +, is placed above a figure, it indicates that an interval is to be added: if above 2, the 4th is to be added: if above $\frac{4}{3}$ the major sixth must be added.



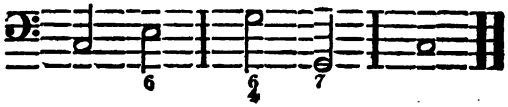
A horizontal line or dash, is used to show that a chord is to be continued.

If the chord be composed of several notes, and the dash be placed only after one of the notes, this note only is to be continued.

The words Tasto Solo, which are commonly placed above a pedal note, show that the right hand is not to play any chord.

When the composer wishes to mark the signatures, he must place the figures according to the order given to the parts in the harmony.



NOTE. Although the general theory of indicating the harmony by a figured base is always the same, yet different composers vary so much in their practice, that hardly two can be found who figure exactly alike.

The figures used have always reference to the base note over or under which they stand; and when there are no figures, the

common chord is to be taken. In the following example the note C has no figures; the common chord of course belongs to it — the note E is figured 6, and thereby calls for a sixth and third — the note G (4th space) is figured $\frac{6}{4}$, and thereby calls for a sixth and fourth — the note G (1st line) is figured 7, and thereby calls for a seventh, third, and fifth — the last note has no figures, and takes the common chord.

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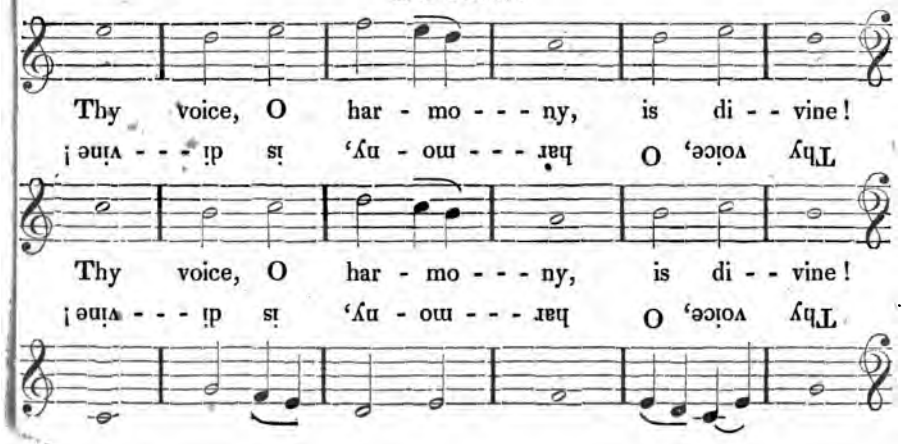

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